BETH SHEMESH
[PALESTINE]

PROGRESS OF THE HAVERFORD
ARCHAEOLOGICAL EXPEDITION

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BETH SHEMESH

Biblical and Kindred Studies:

No. 1. Cuneiform Documents in The Smith College Library. Haverford, 1918.

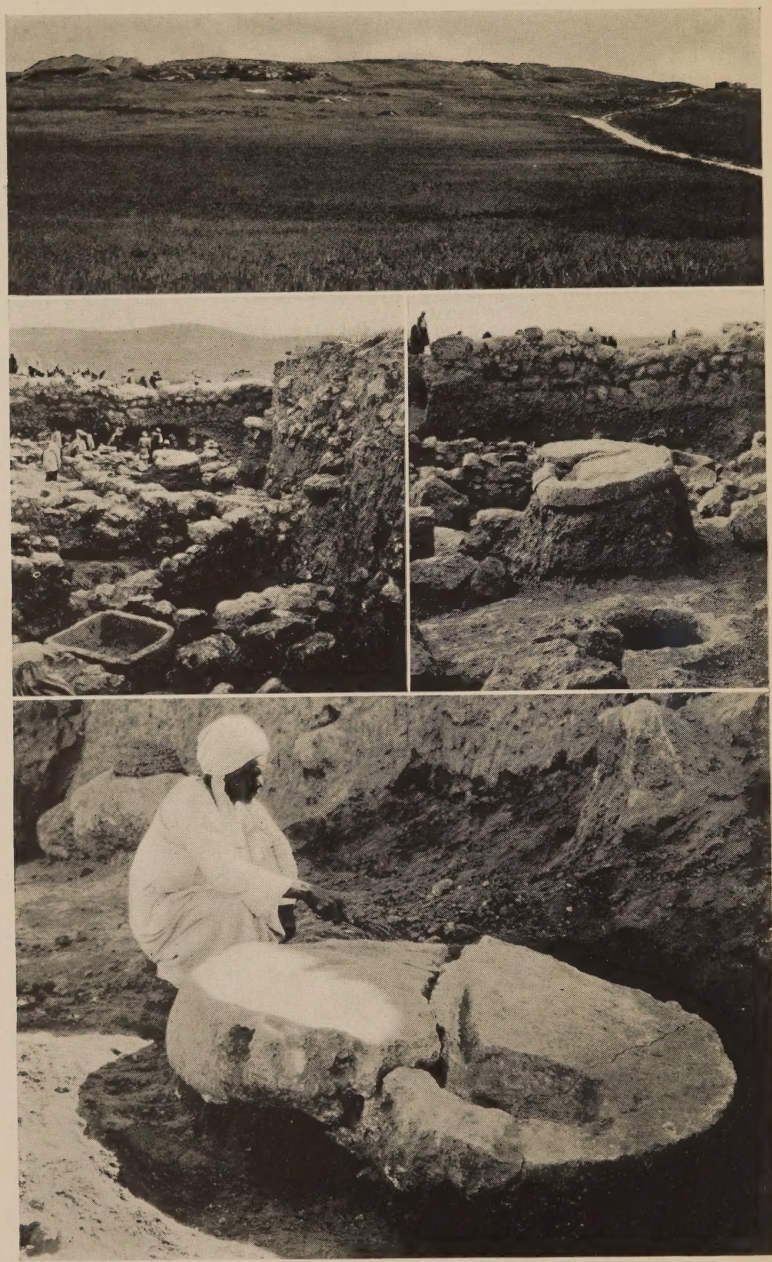
No. 2. Beth Shemesh—Progress of The Haverford Archæological Expedition. Haverford, 1929.

Other books on Oriental subjects by ELIHU GRANT

Babylonian Business Documents of The Classical Period, Philadelphia, 1919.

The Orient in Bible Times, Philadelphia, 1920. (J. B. Lippincott Co.)

The People of Palestine, Philadelphia, 1921. (J. B. Lippincott Co.)



UPPER: Hill of Beth Shemesh. Our debris at the left (west). The mosk at the right.

MIDDLE: Two views in center of east line of our excavation; temple at far end; stone offerings table in situ on Level IV.

LOWER: Offerings table at an earlier date before reaching bed-rock.

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Beth Shemesh

(PALESTINE)

Progress of
The Haverford Archæological Expedition

Elihu Grant

T3 No. 756

Biblical and Kindred Studies
Haverford, Pennsylvania
P. O. Box 223

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ELIHU GRANT, 1929

To

The Students and Memories

of Graduate House

PREFACE

The writer was associated with the Badè expedition to excavate Tell-en-Nasbeh in 1927, and at that time considered two possible sites for an expedition of his own in the spring of 1928. The hill identified with ancient Beth Shemesh was chosen and permission to dig there was given by the government.

The interest of Haverford College in Biblical and kindred subjects has been well known for a long time. Its patrons have often provided generously for studies in the Bible and allied fields.

Many of the pictures of the expedition were taken by the director, certain of them by a young American, Mr. Neale Carlisle, most of the best were the work of Mr. Chalil Raad, of Jerusalem. Assisting in the department of survey, architectural plans and drawings, was Boulos Araj, of Ramallah. Chief of workmen was rëis Berberi Mahmud, of Kuft, in Egypt, accompanied by Metwelli, Abd-er-Rahman, Ahmed Abu Zeyd, and Mahmud Kerëim, all of Egypt.

Many kindnesses and indispensable services deserve special mention, especially those of Major E. T. Richmond, Director of the Department of Antiquities of the Palestine Government, and members of the Department and Museum Staff in Jerusalem, Director W. F. Albright, of the American School of Oriental Research; Pere Hugues Vincent, of L'ecole Dominicaine; Mr. Awad Khourie, of Jifna. Particularly valuable was the advice

of Dr. Clarence S. Fisher, of Ramallah. The saints at Beitgemal are largely responsible for the director's health, and they generously gave many valuable services.

The director reached Jerusalem February 23. Much cold, wet weather followed that date, and it was March 7 when we moved to the monastery of the Salesian Fathers at Beitgemal with a truckload of supplies for the expedition, including tents, lumber, gasoline, tools, hardware, and instruments. The early days were spent in looking over the ruin-hill of Beth Shemesh, which goes locally by the name Rumeileh, also the nearby mosk which we arranged to use as field headquarters, and talking with the people of Deir Aban, owners of the land we were to dig. The Egyptian workers arrived and were established at the mosk on Saturday, March 10. The weather cleared, the soil dried and we completed our preparations. It would be a calamity to unearth good materials before we were ready. Work people from the villages must be available and in a happy frame, the organization of the work to be done thoroughly understood, shelves ready to receive classified contents, facilities for washing sherds, the right location of our dump-heap, instruments, transit, alidade, drawing-table, plane-table, paper, ink, baskets, tools, piastres, everything ready for action.

One of my el Bireh friends was installed as washer of pottery, a man from Zachariyah was guard over the mosk yard and properties. (For abbreviations and book list, see pages 109-112.)

Oakley Road. E. G.

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INTRODUCTION

When there is a country which has been one of the famous schoolrooms of humanity, where experiments are made in family life, individual effort, in trade, battle, travel, monarchy and democracy, where an ethics has been born and religions perfected, where temple and prayer have enlarged their meaning and that country holds sealed information in scores of city ruins, wouldn't one be encouraged to uncover those hill sites and to learn their story of the past?

The British mandated government of Palestine makes it convenient for scientific expeditions to explore the secrets of old Canaan. There is a department of antiquities, a museum in Jerusalem, and a good law on the subject.

There is much interest among Americans in the field of archæology, and one is encouraged to publish the results as found. A score, at least, of Palestine's hills have been cut into by excavators. Not one of them has been completely cleared. The Palestine Exploration Fund, which is the parent society in exploration, did the most thoroughgoing piece of work at the site of Gezer. You will see its location if you look along the automobile road halfway between Jerusalem and Jaffa. South of Gezer and just around a spur of hills that thrust westward from high-

lands to ocean, is Beth Shemesh, a town not greatly unlike the other, probably, and here again the Palestine Exploration Fund (London)* spent many months (1911-1912), uncovered the south gate, ran well within the city and then at the northwest opened tombs which were used for sepulture in the times of Hebrew kings.

How do towns become so buried? Does sand engulf them? Probably not. Oriental settlements are very apt to be placed on a hill and then to rise further in the air very naturally by the rubbish thrown into the streets, and the people tend to build, or repair, their dwellings continually higher in order to keep above the accumulation. When they rebuild they seldom go deep into the soil, or search for bedrock, but build on top of older substructures, pulling out loose stones to be dressed and used again. Then consider the wars, sieges, earthquakes and an occasional devastating fire. Note that the upper stories of dwellings are usually flimsier than the lower stories, and that even natural decay in the course of five hundred or a thousand years would bring the tops down upon the basements, and that occasionally cities are wrecked of a purpose. We find, in excavating, that when those cities were rebuilt, but a few feet remained of packed debris between the tops of the ruined walls of a lower level and the bases of the newer structures. In that soil between the layers, as well

*See the reports of Dr. Duncan Mackenzie published in the Annuals of the Fund, for 1911, and double volume 1912-1913. Also the current numbers of the Quarterly Statement of the Palestine Exploration Fund for those years.

as in the old streets and rooms, would be caught many small articles and bushels of broken dishes. If the process continued on up through three or a half dozen layers of old settlements, there resulted an artificial topping out of a natural hill, for cities were usually on such outlooks or easily defended spots. The surface of an old mound is sometimes partly occupied by a modern village. Often it is practically bare, except for agricultural use or pasture. A ruined mound that is now bare shows to the eye a partly natural and a partly artificial aspect on the landscape.

Thus it is with what remains of Beth Shemesh. It is a terraced, tongue-like little plateau reaching from the old road near the mosk westward to the fertile plain. The upper part, or crown of the hill, was walled for defense more than 3,500 years ago, and the shadowy stumps of that encircling wall still show, a vague line under the soil, around the summit which is shaped not quite like a circle, but flattened on its north-south line as $3\frac{3}{8}$ to $4\frac{3}{8}$.

Chapter I

A Journey Into the Past

The Haverford Expedition was favored when it chose the ruin of ancient Beth Shemesh. It was a Canaanite city which became linked, at least in its name, with the adoration of the sun. Beth in Semitic speech means house and Shemesh means sun. House of the Sun is almost equivalent to Temple of the Sun, and by extension might even mean City of the Sun. Samson, which is also from the root meaning sun, was the name of at least one hero credited to the interesting country near by. The village of the famous Samson is pointed out on the mountain a few miles north of us, and the Sorek Valley flows between, meeting at the nose of Beth Shemesh the valley called the Wady Bulus coming from the south. Beth Shemesh is but little above these fertile valley plains, and is very inconspicuous. Its low mound of rock is covered with not more than twenty feet of soil, rubbish, and ruins, but for each yard of depth there was likely to be a distinct period of civilization.

In our work in 1928, which disturbed less than a tenth of the ancient settlement, we found nothing within the city that could, with assurance, be dated later than the days of Sennacherib, the Assyrian conqueror. The Palestine Exploration Fund uncovered walls of a Byzantine Convent on the eastern side of the site. One wonders

whether the present name by which the hill is known to the natives, Rumeileh, may be a reminiscence of the Greek, Christian occupation. It will be interesting to watch for any signs of inhabitants for this city during those empty centuries.

At the eastern edge of the hill the old road passes by leading towards Hebron on the south. On the other side of this road from the hill is the country mosk with its walled yard, a fig tree and a cistern. In the southwestern corner of the yard is a raised platform. Outside stone steps lead to the roof. Signs are plentiful that a Christian sanctuary preceded the mosk, and probably a Hebrew and a Canaanite holy place were there. Flanking the mosk door on either side in the yard are portions of column tops with Christian carving. The hollow ground around, the stone press-bed in a cave just outside the gate, here a bit and there another, tell of former sanctuaries.

East of the mosk, which is known as the Wely Abu Meizar, is the ruined village of Ain Shems. It appears to have been built of the stone from the remains of Beth Shemesh. Story says that a few generations ago the village of Deir Aban was at feud with Ain Shems and wrecked it, killing or driving away all the men, taking the women and the lands, the really valuable part, and that that is why the possessions of Deir Aban are so extensive.

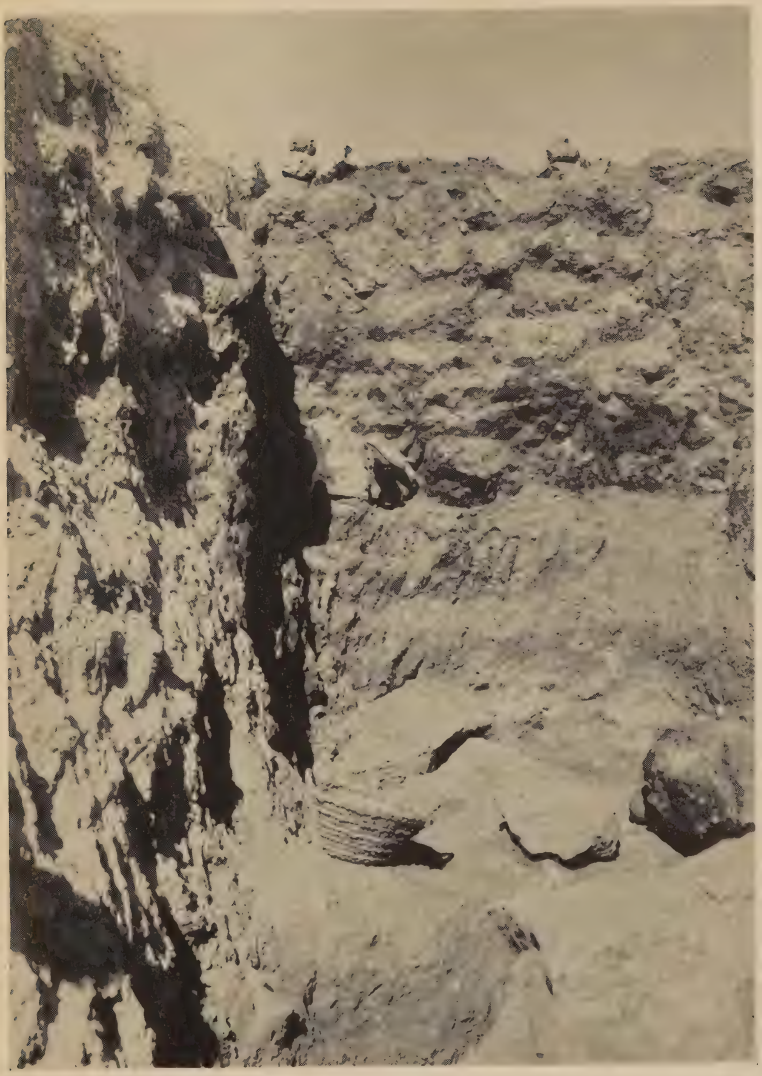
On March 12, then, in the afternoon, it seemed as if our preparations were complete, the soil dry enough to dig, and the time and place at hand. Our five expert Egyptian workers began to remove the top-soil from a sector at

the westernmost point of the mound. They dug at first over a width of four meters going eastward to where stones of an ancient wall showed as a ridge in the soil.

While they were delving with pick and hoe, I walked to the far northerly edge of the mound above the cactus plants musing and looking intently at the ground through the sparse growth of wheat, and there, seeming to look up at me friendlywise, was my first antiquity. It was a fragment of a jar handle with a clear seal impression. Feeling that this was a good beginning, I went on and soon found two more jar handles nearer the top of the hill. These had scratchings on them of less importance, but the helpers were encouraged when shown the three trophies. (213.)

Next day we added twenty-one peasants to the force and carried the work beyond the wall, which proved to be a fortification wall, and then within the city. Ten baskets of pottery sherds were garnered. On the third day house walls were clear. That they were late Israelite building remains seemed likely. The pottery fragments indicated it, and a nearly perfect storage jar resting in its old position was another sign. This jar of light brown ware is nearly half a meter tall, two handled, high shouldered, and was the first piece of skilful excavating done by Metwelli this season. Near by was the base of an oven made of earth burned to a reddish color and banked up with a border of little sherds, each three or four inches square (9x9 cm.).*

*Base of oven is 65 cm. wide and 45 cm. above bottom of the room.



Looking eastward in the first trench to the city wall, March 12 and after. Note repair, ash, soil, bedrock.

After the Israelite jar, the next item to enter our register was the clay wheel of a toy cart, then a chalice in reddish brown clay with traces of fire within the bowl, another chalice, then a fragment, averaging seven centimeters across, made of a fine yellow buff paste. It evidently came from a large "hydria," and on its smooth surface in yellowish red was a bird design. (209.)

The houses, which at this comparatively late period ran out of the bounds of more ancient times, were poor affairs, loosely built and small, according to the relics we have of them. We are doubtless speaking of a period close to that time when Sennacherib, the Assyrian conqueror, destroyed the city and many of its neighbors, say 700 B.C., or possibly we should bring the date down to 600 B.C., near the time when Nebuchadrezzar was to ravage the country. Clearly our section of Beth Shemesh did not survive the great Exile. In all our digging on this side of the hill there was one small object of possible later date, the stone pestle picked up in the rubbish near II. 15 by the tower. It is not sufficient to affect our judgment of the age when history stopped for the western corner of Beth Shemesh. (*Cf.* also No. 8.)

The question of first importance to an excavator is, "Where shall I dig?" The next question is, "Where shall I dump?" We decided to clear a wide space outside what appeared to be the city wall and thus gain ample room for our dust heaps. We piled the extra-mural debris in high mounds at the edge of the hill and cleared the ground

between them and the walls down to the native rock. However, in the Israelite times this space outside the city accommodated many houses, small and poor. We charted such fragments of house-walls as we found and saw that the rubbish from them had been mixed with that thrown outside the city of earlier times.

Tuesday, March 20, was our first great day in this suburb of old Beth Shemesh. We found several fragments of decorated ware, some of it imported. There were pieces of two milk bowls: one was of gray ware with a white slip and dark brown decoration, the other a reddish ware with cream slip and bistre decoration, perhaps a native product closely imitating its foreign sister. Both had wish-bone handles.

In the afternoon we came on the mouth of the shaft containing the first of the burials opened by the expedition. We called it T. 1, and it was to be our richest source, revealing itself as a veritable cemetery and needing weeks of care before we could close it for the season. Late in our campaign we found a tunnel between T. 1 and the T. 2 system. We did not remove any of the contents of T. 1 for several days.

But we were to have interesting materials for our collection before the day was over. Abd-er-Rahman, leading a gang close against the wall on the outside, a yard below the surface of the field, came on a nest of household ware in a perfect huddle of disorder. There were several whole vessels, and more that were nearly whole,

Southern corner of work. At the right and foreground, the city wall.

mostly bowls. Several dishes had been crushed, but so that the parts were nearly in position and mending was not difficult. All were filled with earth and kept from collapsing. A rectangular stone bowl with average dimensions of about ten inches was in the lot. There was an ornamented jug or pail with strainer spout which we reconstructed from its many pieces (ca. 1100 B.C.).*

It is important to keep the pottery of different days separate and more important to separate the levels from which it comes, and whether inside or outside the city walls. There is more probability that pottery within the walls may be found at the levels of the users and breakers of the dishes. Outside the walls the dishes may have been thrown in any order or disorder.

Concerning that defensive city wall against which our first week's digging often terminated, it did prove to be a part of a pre-Israelite defense which still survives in dismantled state around the city. But it was only a later addition to the more powerful wall-system made of better, larger stones and laid upon the original rock in the Canaanite ages which we soon discovered. This oldest surviving city wall goes back for its beginning to the Age of Middle Bronze. The burials of those ages were in a series of rock caves and pits outside the settlements. The earliest burial deposits (T. 3) may be older than the wall, since we found the entrance inside the city under the flooring of our oldest house, and the graves themselves

*See registry numbers 18 to 33 from the city.

were in part under the very wall. These facts seem to us to point to the great wall being younger than that particular burial group which was probably quite forgotten by the time the wall was building. The burial group itself was pure Middle Bronze in its pottery types. We found one amethyst ball-shaped bead in it which is of a kind found in Egypt in the period of the Twelfth Dynasty exclusively. Supposing, then, we say 1900 B.C. for the burial group and 1800 B.C. or less for the wall. We then notice that the cave burials found in what we call the T. 2 system are of a somewhat later order, and that the T. 1 groups follow the succession through Late Bronze and transition to Early Iron Age types, or at least the suggestion of such. That is, we came upon our burial deposits in the reverse order of their respective ages. Our latest find and the oldest group, T. 3, was the smallest and may have been the property of a noble family.

The condition of the skeletal remains in each of the cemeteries agreed fairly well with the chronology of the caves and their pottery. The smallness of T. 3, the decayed condition of its bones, which by the way were shoved quite to one side of the deposits, and the lesser remains of pottery, bronze, alabaster and jewelry suggest either a smaller city or a private cemetery.

The cause and use of an opening in the floor of a room (IV. 4) near by, to the west, are puzzling. It leads to a cave connected now with our T. 2 A., but empty. Whether the connection between it and the burial chamber T. 2 A.

UPPER: Levels II to III—looking north.

LOWER: Southwest corner of latest temple building.

was always known or has resulted from collapse in the cave wall is not clear.

However, the contents of these three burial systems were kept apart from each other fairly well and sealed through the long ages, so that their sequences as revealed now are most significant for the modern study of their types.

Chapter II

The Canaanite City

It would be presumptuous even to attempt to write the history of Beth Shemesh from the findings in a corner of the hill, but one can describe the relics of the three greater civilizations whose representatives lived on those western acres which were examined in 1928. The Canaanites developed the most versatile, artistic and enduring culture in that particular region. Their buildings, judged from the remains, were excellent in structure and alignment. Of course, we are influenced by the fine house walls at the southern corner of the excavations. Everywhere the masonry rests on the native rock. The best city wall, original and repaired, dates sometime between 1600 and 1900 B.C., possibly. Whether parts of it go back to an earlier time we do not know as yet. We left the wall much as we found it. Neither do we know how high and commanding it was. Its width is more than two meters, strong enough for all ordinary purposes. Probably not more than three or four meters of its height remain at any point in our sector. Its polygonal stones often measure nearly a meter across. The slight outcrop of its present ruined top above the soil is just sufficient to give an edge to a modest terracing in the field. When we had removed the upper strata of the city debris, we could more easily imagine

how it felt to be a Canaanite living on the rock level behind his ramparts. We were still hundreds of cubits above the sea plain and the caravan routes which lay between us and the Mediterranean. We were in easy relations with the great nation of Egypt to the south, whose goods and styles we often used. The trade of Canaan brought us farther connections, practically, with every island and country around the Mediterranean. We had the finest models of the ceramic art to enjoy and imitate, from Cyprus and from Crete. Implements and jewelry, ideas and customs from all the Sea-lands, west and north of us, were known and purchased. But we had our own clays and with them our potters must necessarily work as they fashioned many beautiful shapes. We could experiment in design and color and enjoy a degree of independence when we were making wares for the home market. Our dishes would not compete abroad with those of other lands, but they were suited to our wines, oils, dairy products, etc., and they had honorable place in the clusters of vessels placed with our dead. They had the great advantage of being reasonably priced. Our leading men followed the Egyptian custom of wearing a ring containing a signet carved in the form of a scarab, often brought from Egypt itself. Steatite was the commonest substance used for these seals, though serpentine, paste, crystal, amethyst, carnelian were also used. Egyptian deities pictured in seals and amulets showed the veneration in which the gods of the south country were held, but our popula-

tion really set more store by the great goddess of fertility, the Astarte (Ishtar) of the East. The rugged enthusiasms of the hinterland for the local deities and bloody sacrifices penetrated our border towns, and we were not likely to be disrespectful of the gods of any people with whom we did business. So religious knowledge from the direction of Europe and the islands came to us and was assimilated to our native preferences. The serpent cult was known and incorporated with our representations of the deity. Charms and amulets were imported outright and used, as received, in our own manner. We were not narrowly sectarian. Our primary instincts were for agricultural Canaan, but our secondary training was richly cosmopolitan.

There were many men and families of wealth and ability among us. Such persons might speak or even write three or four languages. Politics did not concern us much except as affecting business and taxes. We had known the serene strength of the Twelfth Dynasty in Egypt. Then came the powerful pressure and effective disturbance of the Hyksos lords who conquered and administered Egypt for a long time, and when expelled made an expensive demand on our resources, but we compounded with them, and with the triumphant Egyptian nationalists who followed them up so often and challenged their very existence. The seventeenth, eighteenth, nineteenth dynasties of Egyptian rulers found us accommodating. We paid our dues. We carried on. We could always manage to keep

the peace with those who controlled us from the outside and let us develop those lines of trade by which we lived and paid our taxes. Our most serious difficulties came from invaders who wished to live where we were living and on what we had been living upon. Such were the marauders from the west, called in general Sea Peoples, who really cast their eyes on the good things of Egypt, but when they were thrown back upon us by the Egyptian armies were a serious burden. For some of them had attempted to enter Egypt by the overland routes through Canaan. Similarly the Habiri tribes from the East and South were a pest and very destructive.

These two greatest annoyances, the western Sea Peoples looking for homes and food, and the Habiri desert tribes thick as a locust plague, wrecked our walls of defense which had been a safeguard against most social ills and gave us new masters. Egypt was weak and could not, or would not, give us the protection we needed, even in her own interest. In the wake of the Sea Peoples was a guild of clever business men with certain western connections who got control of our commerce and used their political strength to take over the government of our towns. We had been going through many shiftings and adaptations in our social fabric, and the methods and conveniences of living. For example, a much less beautiful but more effective metal, iron, was displacing the former king of practical metals, bronze, and it seemed as if a train of consequences followed by necessity. One would

notice many changes in our ceramic art, in our business methods. While beauty was not banished, it seemed as if utility was forward, being a kind of beauty in itself. We noticed a speeding up of all activities, farming, manufacture, transportation, warfare, trade. Intercourse with the nations was more businesslike, perhaps less cultural. We were still religious, but perhaps more perfunctory about such matters than before. There were more styles in commodities and devices from which to select, probably fewer artists. The Philistine lords of commerce ruled in five great towns not far from us, and threw their methods and their control over such smaller towns as ours. With the Philistine occupation there was probably no more than the normal accommodation of religious ideas and practices such as any thoughtful person might expect in more strenuous times. The larger mass of the population continued Canaanite, though the offices and prominent positions were usually filled with Philistine leaders or partisans. The city walls which had been damaged in recent troubles were reinforced by a lesser system of walls and towers in smaller stones.

Fire had done its destructive worst on the buildings of our city, or many of them. Roof timbers and clay upper stories had come crashing down on the good masonry of the first story, and charcoal and ash showed where the dwellings had smouldered for days. The frightened people were gradually returning to their old habitations. Sometimes there were new masters, but they couldn't use

GODDESS, EGYPTIAN STYLE

Lotus, papyrus, reeds, serpent on left thigh. Registry 463.

all the property. The rubbish piles were smoothed off and new lines of streets and houses were built. The bases of these were but little above the wrecks of the older buildings. The common people were needed in the work and sometimes mixed with the poorer classes of the invaders. In twenty years one saw a different city. It was up a little higher in the air in spots. It was defended by a wall partly old and partly new. A great deal of rubbish had been dumped over the wall and allowed to roll part way on the slope. For that reason we needed a defense a little higher. The stumps of the old wall made a very solid foundation. The old cemeteries were lost to sight and one would have to cut through meters of debris, and even then have difficulty in locating the mouths of the pits and caves. Weeds grew over these slopes except where a farmer's grain or vegetables crept close up to the bastions.

The prosperity of the city was quickened by excellent trade conditions. The new lords had many favorable connections abroad and up and down the coast. Many other cities suffering a similar fate with ours and passing into the hands of similar masters worked out a commercial life very much like that at Beth Shemesh. Such cities made a league for business and helped each other to grow in wealth and the good things of life. It was a period of expansion and enthusiasm. The new wealth made it possible to buy the comforts of life, and the success of the communities of trading citizens was known abroad. Some of the Westerners may have called the country Peleset

land, or Palestine, as it was later named by the Greek and Latin peoples. Others continued to say Canaan, but in time the older name was almost forgotten. Matters were not allowed to run smoothly forever. The West had had its turn of breaking things up, and now the farther East was to take a vigorous hand. Restless, famished tribes of Semites called Habiri, with ideas of their own, and the physical force to drive them in, overran the country and disputed all authority. Egypt was powerless, or preoccupied, and the local magnates were driven to make terms, or die, before the ravagers.

The destruction of that Bronze Age which we call Canaanite was very uneven. There are places where every vestige of a house wall has disappeared clean to the rock. The dressed stone of the old houses saved quarrying, and wherever it could be reached easily would be adapted to new uses by the builders who lived in the Philistine and Hebrew periods. As the plans will show, the lines of the buildings are fairly clear wherever we have removed the layers of the Iron Age. We cannot identify any part of the Canaanite stone work as earlier than Middle Bronze, but we have enough fragments of pottery earlier than 2000 to suggest an Early Bronze period at Beth Shemesh. Whether it was a stone city, or built of brick, slightly outside the present bounds or shrunken somewhere within them, whether it had a wall and where it buried its dead are questions that remain as well as the extent of its occupation and the nature of the race.

The buildings of II. were the most numerous of any level in our sector. Noteworthy is the comparative fewness of buildings in Level III., next below. The best structural masonry is on Level IV. In the southern corner, for example, the exterior walls of houses are very wide, the party walls are a single stone's width, but well laid.

The large palatial structure was remodelled twice. On the lowest level of its base we find a dark gray clay worked. The repaired floor levels are beaten lime, giving almost the appearance of plaster. The side walls and jambs show similar evidence of renewal. A rounding pilaster-like pile of rubble chokes what was once an entrance to a very narrow room or hall. This filling probably belonged to the second stage of repair.

Chapter III

The Philistine Interlude

Why are the Philistines so elusive? There was a people important enough to leave their name stamped upon the land of Canaan. Palestine it will be forever, or certainly until this epoch is forgotten. The Philistines are indelibly impressed on the national records of a people who feared and hated them. The Old Testament has made the Philistine the villain of the pre-Assyrian Age in Palestine, and has bequeathed the odium of the name until Matthew Arnold could catch and set it in his amber. For commercial success, for sordid materialism, for all unloveliness and hatefulness, these predecessors of the Jews were pilloried and their name is still useful to express certain ideas antipathetic to a free and generous humanity. No wonder those sturdy Hebrews of the open spaces, with their Bedu-like scorn of the subtle, the sophisticated, the corrupt, despised the magnates of the plains. No wonder the Philistines seemed irreligious and immoral, utterly despicable to honest men. No wonder a David proved a glorious foil to the whole diseased race of them. But why may we not know more about them? Because like Carthage they were so sterile in the things for which we most deeply care? Because they were so evanescent, so short in their grasp of reality, so small a factor in the finer

life of Palestine? Because they sold out and for their short-lived grasp of worldly power surrendered their chance to be a growing, progressive race and nation? Because they were merely the attractively patterned slag from a fiery mass movement of races converging on Western Asia from the Mediterranean threatening the glory of Egypt? Where the gold of that crucible of Sea Peoples was left we may not know. Sherden, Danaoi, Weshesh, Thekel, Peleset, these nations had doubtless great values within them. If the last really gave name to Philistines and Philistia, *i. e.*, Palestine, then we may have a clue to what happened. The heroes fought for the new homes and food needed by their wives and babies. With Goth-like savagery they assailed decaying Egypt, but not successfully. Flung back upon Syria and Canaan they settled as best they might and made one of those many Western contributions to the East, which are all so hard to appraise. Epigoni of warriors and frontiersmen, the remnants turned traders. Punic or Philistine, they made war serve their lust for business and failed in it. Hebrews and Romans had better ideals and a more fruitful valor.

Fragments of the Sea Peoples may have been absorbed by the rising Phenicia and have laid in the South the foundations of that Hanseatic League of Philistine cities. May we say, then, that the Philistine is a relic of the great mass movement of Western peoples known as the Sea Peoples, and one reason why they are so little known is that they occupied the stage for a comparatively short time

and were more secular than philosophical, therefore left no record of their self-consciousness? Their publicity was managed for them by ardent enemies.

Wherever the Philistine veneer disappears from the sacred records the old Canaanite terms are apt to rise to expression. Yet the Philistines must have been more picturesque than the Edomites, Girgashites, or even Hittites.

The terrific flashes of Hebrew hate were reflected from the metallism of the Philistines, as they were never thrown back from those other worldings of the land. Perhaps the Hebrews envied them more. We can imagine the easy swagger of the foe from the towns, with his paid soldiery, as he recognized the menace in those Eastern raiders, the Hebrew clans. Perhaps he did not even expend his whole strength until too late, when the mountains accumulated and overwhelmed him. With David the conquest was over. The nemesis of the merchants was the finest outburst of pure Semitism in the person of this darling of Israel's golden age. Maccabaeus and Muhammad are the others of the East's most magnificent militarism, and this trio was fundamentally idealistic.

We are tempted to think of the Philistines as introducing Canaan to its Iron Age, but we read the testimony of Beth Shemesh otherwise. The burial sequences there which may never have been disturbed by Philistines, in ignorance of them, seem to show that the Canaanites glided into the Age of Iron in their own right. Iron fragments (bracelets or anklets) in T. 2 are strongly sugges-

tive, as is the change in pottery types and decorations, as we scan the mementoes in cemeteries, 3, 2 and 1, in this order. The shapes, the colors, the designs in 2, and especially in 1, are cognizant of the transition from the older metal to the new in Mediterranean countries. The widest experimentation is revealed in cemetery 1, our transition cemetery, and is almost as eloquent as an inscription would be in telling of the change. So, when the Philistines came, they did not bring in the ceramics of the Iron Age, but a further extension of its repertory. Both in their importations and in the local imitations and influences of those imports a distinction is seen, but not a sharp difference.

The types shown in the registry as Nos. 390, 393, 497, etc., repeat the well-known patterns already called Philistine. Utility is the salient feature of the Iron Age, and marks the wares of the Philistine and Hebrew times. But at first utility is loth to drop decorative excellences. That applies all through the Philistine and early Hebrew models. The Philistines must include design because they were importers on a generous scale, and the local potters of Beth Shemesh would have the stimulation of the foreign wares in beautiful design of line and color. Yet it must be said that the artistic merit of the local pottery declines as we leave the Bronze Age.

Chapter IV

The Hebrews at Beth Shemesh

We may go to those plaintive messages from Palestine, found in the Pharaoh's archives at Tell el Amarna, to learn how severe was the force of the vigorous Habiri against civilization. We believe that the Habiri and the Hebrews were kindred. We do not use the term Jew until after the period of Beth Shemesh. The Hebrew conquest of Canaan-Palestine was a phase of that desert pressure through the wilderness upon the cities. The Hebrews did not barter nor compound. They took and smashed when they took at all. Often they fell back mangled and scattered, but never destroyed. They gathered the remnants of their people and consulted the oracle, and though bewildered, raged again and again at gates and walls. Tamed at last and seduced by the softness of an ancient culture, they settled on more or less amicable terms in, or between, the marts and palaces. Now and again their patriotic prophets fired their resolve and released the terrible arm of jihad. The Bible is eloquent of the passionate clashing of ideals as well as of weaponry. Gradually the Hebrew folk became schooled in the arts of Canaan. Gradually their rulers became corrupt. But the racial roots still sucked at the drying springs of the East to bring forth terrible ascetics, Elijahs and Micahs. A few chosen

Looking east on Level II. Temple at left. Pillar stone in center. Great street running to right.

followed the greater leaders, and so schools of the prophets gathered their teachings into memoirs and anthologies, but the majority of the Hebrew people succumbed often to heathenism and paganism. For there was no true monotheistic public of the Levitical type until the Persian period after the chastening of the Babylonian conquests.

Our duty is to assess the share of Hebrews in the changing accounts of Beth Shemesh, a business city on the confines of the fertile plain that looks towards Egypt and Europe. The success of Hebrew arms at Beth Shemesh, at first dubious, was at last convincing, and the city had a taste, more, of savage revenge. Fire and wreck were at least as thorough as in the first successes of the Sea Peoples. We incline to think that the Hebrew change was more decisive, for the walls, the houses, the shrines and cult objects of the doomed city. The more warlike Hebrews were passing to conquests farther afield, or had become accustomed to the mountains, the gorges, the Jordan Plain, and the by-ways among the lesser hills. Garrisons were doubtless left in the frontier cities as Easterners would consider those of the Shephelah. Perhaps the gentler social elements among the invaders would accept the privileges of conquerors and learn to be merchants. We imagine that the majority of the inhabitants was Canaanite in the rehabilitated places and secretly carried on nearly according to their old convictions in religion as in business. Not too secretly, because a mixture of invaders, though politically dominant, usually results in a softening of the preju-

dices, even at times of the loyalties of a conquering minority. For some such reasons the soldiery of Islam, in the impressive conquest of a later world, was quartered in camp cities not too near the towns they subdued.

Beth Shemesh resumed its life, sadly broken, as a factory and caravansary of the Iron Age. It did not, perhaps, repair the useless wall (see Mackenzie). It levelled off the bloody ground, gathered convenient building stone, laid out new lines of dwellings and shops, and sought to live on the rich farms at its feet, to gather fees from the crippled caravan trade.

Either this western part of the hill was at first sparsely settled after destruction, or much remained of previous dwellings. There is not a large amount of new building registered. The sanctuary space may have been a deterrent to setting dwellings too near, though a formal religious building was attempted a little farther north. (See plan.) On this same site a larger temple was built enclosing the earlier with its buried level, but sanctity may have long hovered about the entire region.

Later Hebrew Times

The population swelled notably in the later centuries, say from Ahab to Hezekiah, kings of Judah. A fine street of unusual width ran southeast and northwest over the place where Canaanite houses had stood, over the stone-

UPPER: Cistern 1. West edge of work.
LOWER: Pottery group in place, April 17.
Southwest corner of a room west of II. 12.

table of offerings which perhaps was but little disturbed. It has cup-marks, a grooved channel and a basin-like depression for catching blood. Its cracked condition may be due to the great weight that came upon it in its slightly tipped position. Good houses lined the street on the west. On the easterly side was a market-yard paved and a flat-iron-shaped building. Inside the three-cornered room, snug against the threshold, was a stone, a meter and a half in length and circumference, carefully chip-hewn. A third of a meter above it, on a southern corner of the room wall was a stone socket which fitted it. Several other bætyls, or sacred pillar stones, are near by, all prone, and seem to belong to one system, which includes the limestone offerings-table. These cult objects were not notably abused, and may simply have been gradually outgrown and forgotten after the early Hebrew period, from Solomon to Ahab. Houses, floors and a street were made over them, and the current worship went on in the temple structure slightly farther to the north, where an astarte head, an incense-burner stand, in clay, and other objects were found. That temple proving too meagre, a large structure swept it in and covered it. Its pillar bases and side walls, bits of plastered floor and a few small cult objects are all that have been found of an impressive foundation.

The poorer people of this precinct must go westward toward the city wall for their lesser houses, and over and beyond the wall. Their bins and shops and narrow alleys were our first masonry. The layout of that late Israelite

city which never recovered from the blows of the enemy, perhaps Sennacherib the Assyrian (700), is of peculiar interest to us, since it was our first archæological picture of Beth Shemesh. When we took it over, the accumulation of 2,500 years lay on it, a fairly friable soil of two feet depth. Most protruding stone had been carried away and wheat clothed it completely. Therefore it meant but a few hours to reach much antiquity. And as we concluded our study of this stratum, which we called II., we regretted to see it dissolve.

Upper: April 6. Pit mouths of T. 2 c., d. and e.
Lower: April 2. Digging and survey in suburbs of Level II.

Chapter V

Eloquent Cemeteries

They were the greatest surprise with their wealth of suggestion in color-design and sequence. That we should find them in the reverse order of their age, is an interesting fact that comes out on comparison. The first one found is farthest from the great city wall. It lies out on the face of the rock, six meters from the wall. A deep shaft, nearly circular, filled to the top with soil and gravel, leads to an underground chamber, eventually, which gropes in several directions, one of them being a tunnel leading into T. 2. The walls of these caves are very soft and likely to crumble if jarred or rubbed. It was not always easy to tell whether an excavation made would lead to further burials, an old chamber filled up with fallen marl, or simply enlarge the natural size of the cavity, so soft is the substance of which the caves are made. Burials continued to be made for a long time, we judge, in the younger cemeteries, perhaps two centuries, or, perhaps, but one century in T. 1. The last burial, that is the first one uncovered by the expedition, may have occurred just before the destruction of the business prosperity of the Canaanite when the city succumbed to the Sea Peoples. We were very leisurely about the clearing of the first deposit, not knowing but that we were at the bottom of the pit and not dreaming

that other caves, well provided, were near. Therefore we drew and photographed, measured and prepared to interpret this first grave.

The experience of opening those many graves was a succession of surprises and delights. Before we had become well acquainted with T. 1, the second tomb had been disclosed. It soon showed specimens of jewelry, beads, and even a scarab or two. Sieves were brought to help and the rubbish from these caves was treated very respectfully. It paid well and much of the debris was put through several siftings. Two grades of fine sieves were used. The eyes and fingers of the Egyptians were almost equal to sieves, and usually anticipated them. When we gathered carnelian beads enough from one spot to make a necklace, we guessed we were in the last abode of a woman of ancient time. We did not identify her skeleton. We were more fortunate in the case of certain warriors whose weapons lay beside their dishes and close to their frames. T. 2 was very soon known as having two entrances, which we then dubbed a. and b. Some entrancing combinations of pottery were early shown, and the "bilbils" in T. 2 a. were nearly cemented to their bed, so thoroughly did the falling marl of the ages close them in. When T. 2 c. came to view we were prepared for almost any degree of ramification and richness, especially as T. 2 d. with its double entrance followed soon. A hole in the face of the rock beyond, *i. e.*, southeasterly from it, proved empty. These various openings were parts of a fissure which threatened

The area of the burials outside the wall, particularly T. 2 b., c., d. and e. T. 1 is to the right of the mid-ground.

the limestone all about us. The fissure leading to T. 2 e. went off in a westerly direction from c. and d. Next to the greatest surprise, was the almost unending richness and variety of T. 1, as we continued to call it, although making allowance for its departments. As Metwelli went downward in the pit, the successive layers brought out a phenomenal quantity of vessels.

A whole day would be spent on a level, cleaning with brush and knife the ever-deepening hole until we had an open display of much pottery which had been huddled, or piled, or shoved to the sides as some later funeral party came in with its burden. The first burial we opened was, therefore, very naturally, the most orderly of all. This emptying of T. 1 continued for many days. Most of our color design and many of our most valued shapes were the result of its yield.

Meanwhile, T. 2 a. and b. showed unexpected developments. We had noted its tendency to run under the wall and city, and suspected a fissure, at least, in that direction. This further extension of it seemed likely to endanger human life. We borrowed railroad ties and attempted shoring. Piling of loose stone to make a support for the cave-roof was also contemplated. At last a large room was cleared northward and the connection did go under the city, to emerge in the floor of IV. 4. Very naturally the question arose to the lips of one of our scientific visitors, why? Did the family know of this closet full of skeletons near at hand? Was there ever an open passage, or was it

always blocked and difficult, and what was the chronology of these facts and relations? Many of the developments in these caves probably took place in the ages since their use. Limestone caves are very changeable. New ones are forming and old ones disappear as sides and roofs collapse. Only persistent digging will recover the ancient chambers and passages, and even then with such soft rock it is not always clear whether one is restoring a cave, or creating one. One is, however, reassured when, in the thick of an ambiguous fill, one comes on human bones and a plentiful supply of household utensils.

In the neighborhood of these funeral pits we found other holes which yielded no sign of artifact, or bone, and thus reassured us that we had probably found all the passages that had ever been used.

What was perhaps the greatest surprise of all was the finding of the third burial cave. It opened directly under our painted mark IV. 1. It was soon apparent that this smallest deposit and nearest the city was the oldest of the three systems. We were not disposed to welcome any more complicating discoveries, but came on this burial so suddenly as to leave no choice but to go on with it unless we would risk its discovery by illicit diggers. However, it proved easy to measure, sketch and photograph, and simpler in its nature than the other caves. There was no risk of falling sides, or top, and its contents were immediately available. As seen from the opening made by lifting away the well-packed cover stones, the jars looked

to be in better order and condition than the contents of the other pits on first opening. Was it a private burial place for occupants of the fine house? I remarked to the rëis as he poked about the entrance during his breakfast siesta, that "Allah behib hathi esh-shugl." He grinned appreciatively.

It is possible that further excavation in the region of the three systems of burial may reveal more extensive cemeteries, and we hope to reopen the edges of our dig and follow indications, but we can hardly expect any more revelatory types of burial unless we are favored with an Early Bronze Age tomb.

Chapter VI

The Extra-Mural Suburbs and Remains, Exclusive of Burials

It was well that the expedition began where it did, and that it soon gave over the idea of intra-mural excavations for the while. For the sake of its rubbish piles alone it was important to have ample space outside the walls and just under them. And since there was a city wall there and, as it proved, more than one, it was very good to see the outer face before being introduced to the complications of stratification studies and building remains. The nature of what might be found in the city came to us gradually in the stray bits thrown out in the debris beyond the walls.

The two meters width and depth, immediately outside the city wall, show many stones from the wall, so that the external rubbish from that period of fill may have been contemporary with the dilapidation.

The late Israelite houses, possibly early Israelite houses, were two meters above the face of the rock in which the pits are found. And as two meters is about the depth of the overthrown loose stones of the broken city wall, we may surmise that when the great wall and second wall were effective the rock surface would be nearly clear, and that the building of the suburbs began at a time when two

meters of fill had taken place. Houses on the inside of the wall would be nearly at the level of the wall in its ruined state, or even rise above it. As soon as the filling outside was high and level enough, the houses would tend to run over and beyond to where we found their stumps laid on earth.

The Wall System

Did the city of the Early Bronze Age have a defensive wall? Are any parts of it in the present ruin or wall? That is, did it follow anywhere near the present known lines? Mackenzie and Newton had pretty well determined the wall's course. A terrace-like ridge around the hill indicates it, and the Palestine Exploration Fund party essayed many cuts here and there in the circuit, besides the pieces, together with the South Gate, which they exhumed. The portions of the cyclopean wall resting on native rock are impressive and convincing, but what of its date? In a small degree it resembles the Tell-en-Nasbeh wall in its face, but lacking plaster and apron-like revetments and the enormous thickness of that wall. It has been compared by one scholar with the Jericho wall. A fine house which we incline to date Middle Bronze in its early period, abuts on the wall and uses its interior face in such a way as to suggest early knowledge of it. In that house system, leaning against an angle of the wall, we found No. 374 in IV. 9, a Middle Bronze type of jar.

How high was the wall? Probably not as high as the Tell-en-Nasbeh wall, which may have been 40 to 45 feet above the rock and, with its magnificent breadth, 16 feet (and even 20 to 25 on the east), might well have been a fortress. Then, too, jar No. 765, found in the fine house system and resembling certain specimens within T. 3, may suggest that the two spots are near of an age. The two types, however, are not identical. How far apart are they, if in sequence? Or are they contemporaneous though different? Was the small cemetery put there before or during the life of the house? The house is palimpsest. Signs of repair and remodelling are on it. If T. 3 was the property of a private family, or clan, a noble family presumably, then perhaps they knew a reason for having the entrance from within their structure. I doubt it. I believe the burials would be more remote from dwellings, perhaps, and outside any city wall that might exist. Did the builder of a house later discover the secret, disturb the contents of the chamber, withdraw, close the place, build his flooring and walls over it, and close its history until May 5, 1928? This seems to me plausible. I don't see how a mason doing such good work in that quarter could fail to note the peculiarities connected with a covered pit entrance. The covering was well done, else silt would have filled this cave as it did T. 1 and T. 2. The careful covering known to the property-owner of the south corner house may have been with relation to another and earlier house on the site. One cannot say which of several pos-

Top row, small objects of stone, clay and bronze.
Lower rows, stone objects, rubbing stones, bowls, etc.

sible opportunities was availed of to disturb the treasures.

At some time in man's very distant past, he began to use stone, but the date is now impossible to place on his time-table. He has never ceased to use it. We found flints all through the layers of our mound, little saws, scrapers and knives. However, flints were plentiful in main levels III. and IV. and rare above these levels. Stone in the form of bowls, vats, mills, and rollers continued in use. Stone weights are a convenience that the citizens were loath to change and, of course, jewelry will never discard stones of great value and beauty. Considerable alabaster was used in dishes, much of it in a bad state of decay. The prize piece, complete, was provided with a removable neck, ground with a deep flange and so finely that the joining scarcely showed.

We found very little bone, some for handles, beads or buttons. Ivory appeared, the largest piece being the base of a mechanical duck, shaped very like a boat (130x58 mm.). Shells as implements or ornament and cut into decorative shapes were there.

The explorers were pleased to find good specimens of pottery, in the lower levels of the city houses, which were similar in design to some of those found in the tombs. One would naturally expect that more whole specimens would be preserved with the burials than in the wear and tear of street life, or even in daily use within doors. Jar No. 374 we found and photographed in position, as the people left

it in an angle, within the fine Canaanite house (IV. 9), on the floor. Mahmoud came and marked the fragments as they stood in place, since they would fall apart when the jar was moved. Then at the wely he washed and reassembled the vessel.

Chapter VII

Results and Objects from Day to Day

Let us now review a little more closely the materials which underlie this sketch of old Beth Shemesh.

The pure, Middle Bronze (2000-1500) burial deposits of dishes in T. 3 is a good point of beginning. Its position might suggest that this cemetery was placed outside a settlement and probably earlier than the great wall. It was almost surely unknown to the builders of the great wall. Would anyone put a grave under a defensive wall? Would anyone knowingly put such a wall over a burial-cave which could be entered, conceivably, by crushing the rock-floor beyond the wall, outside, and in any case would endanger the stability of the heavy wall above it?

We may surmise that T. 3 was used as a burial chamber in the early part of the Middle Bronze Age. In Palestine that is generally dated between 2000 and 1500 or 1600 B.C. We suggest the date of 1900 B.C. for T. 3. Somewhat later, perhaps a century, the great city wall was built. A little later the fine house was begun and still later it was repaired, perhaps extended. During one of those repairing experiences, perhaps when an extension took the inner face of the city wall as a wall of the dwelling, the builders discovered the entrance to the ancient burial and closed it again. They would look within the cave before closing it

up, and perhaps they found something still left which was worth their taking.

We should like to know how many times this cave had been opened before, and who was the intruder who pushed so many of the bones into the far end. It would seem that bones and vessels may have been brushed aside each time a new burial was made in other pits, but this crowding was different and may have been done in one effort. In time the bones of even one's fellows are apt to lose some of the consideration which is given to the recently deceased, or, at least, a different kind of treatment is accorded them. Remember how at the monastery of Mar Saba in Palestine the most ancient skeletons are compacted to save space. In other communities, too, the remains are cramped more and more unceremoniously as time goes on. The bronze needles and pins which had been left in the bone group were in the most advanced stage of corrosion, gleaming with that lovely but disastrous blue color, as the light from the upper world fell across them that first Saturday in May.

We missed in T. 3 any of those charming Cypriote pieces made of fine paste, with lustrous surface and fine painted decoration such as turned up in T. 2. But in the adjoining structure in the city, was one whole specimen of Mediterranean imported ware (213). This, evidently, was the property of a later dweller in the fine house who lived at the time when T. 2 was being used. Again remember as a small matter the spherical bead of amethyst in

T. 3 and other small objects. If that ball bead were found in Egypt it would surely suggest the time of the Twelfth Dynasty. Then further, the scarabs are suggestive of the early age of these deposits. There are fourteen of them pictured on page No. 89, the lowest three rows of the group.

We seem to be provided, after our starting-point in T. 3 and its contents, then, with an orderly and most interesting sequence right up through the strata of the city and out through the sequences in cemeteries T. 2 and T. 1. The masonry of the successive house walls is in three main layers, but two of these threaten to break up into two period-styles apiece, which would make five periods of occupation. Counterparts of a goodly number of the Bronze Age pottery models as saved from the cemeteries were found in the debris of the city, usually in fragments. The Iron Age pottery was more plentiful in the city debris and frequently whole examples turned out. A considerable number of painted sherds from the city streets and houses have been saved for design and color. They catch up the anticipations of themselves in T. 1 and go on to much greater variety. Then the Mediterranean importations have to be considered along with the specimens generally called Philistine.

The Early Iron Age dishes suffered severely, which hints to us how other property of that time may have fared. Naturally we think of the age of David and Solomon as the time when the blows fell on the Beth Shemesh

of those days. We remember the raid of the Pharaoh alluded to in I Kings 9:16, which may well have affected the district. "Pharaoh, King of Egypt, had gone up and taken Gezer and burnt it with fire, and slain the Canaanites that dwelt in the city, and given it for a portion unto his daughter, Solomon's wife." Notice that the Canaanites and not the Philistines are in the town, or else the memory of the writer harks back to them. The Philistines ruled an essentially Canaanite town, and we think that the Hebrews did the same when their turn came.

The question will arise as to whether there were any truly Hebrew potters in Beth Shemesh in the Early Iron Age centuries. The fact that the Hebrews may have been near, or warred there, or even governed there, in some sense, does not insure that they were potters. To go back a point, we might as well have asked the question, "Were there any distinctively Philistine potters?" It is probable that there were Philistine importers of foreign pottery. But the local Iron Age styles may have been largely Canaanite products from 1200 B.C. to the time of Ahab and perhaps later than that.

The next fact to be noticed is that complete, or anywhere near complete specimens are very much more abundant in the latest Israelite stratum found than in any stratum between that and the beginning of the Iron Age —say 1200 B.C. We use these boundaries of time at Beth Shemesh without any sense of sharpness. Fortunately the sherds were plentiful from top to bottom of the city

proper. We noticed that the variety and the richness of color in the sherds fades almost away as one comes into the top layer of all, what we have designated as level II. We should be quite reconciled to using the term "Iron" for the time from 1200 to 600 and leaving the racial specifications to politics rather than pottery. In such case we should scarcely mention Philistine, Hebrew or Israelite. The one consideration that would hold with us would be that the later Iron Age forms in clay vessels are true to the types in those hill towns where the Hebrews or Israelites were really dominant as rulers and formed a considerable part of the population.

As to the little nest of dishes uncovered in a very shallow excavation, so near the surface of the ground, just outside the city wall at the south, by Abd-er-Rahman, March 20, I think we may hazard an explanation of that, perhaps. They were of the early iron period, possibly to be called Philistine. They were in a huddle and much cracked. They could have been left there hastily, just outside the wall which was then much higher. They received a shallow covering of soil. Then came the destruction of the city wall when top-stones came tumbling down to pile up over the pottery cache. When later builders wanted any good stone, they treated this extra-mural jumble as a poor man's quarry, and in time the stones were all used up, so far as they showed above the soil. When the loose, easily taken stones were gone, the pottery group aforesaid was, again, near the surface, for there had never been a deep

earth layer over it. It is tempting to say that the cluster of dishes was dropped near the wall and outside it at the time of the attack by the Hebrew clansmen, that the enemy proceeded soon to destroy the upper part of the wall, and that either later repairers pulled out the stones or builders, even as late as those who raised the village of 'Ain Shems, continued doing so.

The debris in the city was orderly. The debris, thrown out from time to time, beyond the city wall, was in as much disorder as one would expect. There is a spot, memorable as the location of many bits of thin wish-bone handle ware, and near this spot in work which we did in middle May to determine whether we had an offset or something else in the wall at that point, we found a few more fragments of this wish-bone handle ware (Cypriote) in ashy gray. Near the earliest mouth of T. 2, but above it, in the debris, was a base of pitted or comb-pricked ware such as we usually date c. 1800 B.C. (registry 68). A little farther south, and in the upper debris, we picked up a piece of ledge-handle ware of too early a date to belong to any house levels found.

The Objects

Perhaps we may now take up again the daily succession of experiences where we broke it off at page 25 and describe the discoveries more in detail from our notes. There is a certain advantage in contemporaneous impressions

which are too apt to be forgotten in the summing up of later interpretations. The rawness of the early estimate is more than compensated by the recapture of a sense of progress. To review then, with the help of letters and diary, what we mentioned on page 22:

March 20. About 3 P.M. today in a pit we were clearing of stone and soil, about thirty feet below the surface of the ground, we came across a promising burial of bones and jars. We cleared about three inches more of the depth of the silt and then I sat by it and sketched and measured and debated. The light was poor, the day declining, the Ramadan holiday coming. To leave it seemed risky. We had dismissed the workman who was hauling up debris with rope and basket, and I had only my best Egyptian for fine clearing. To disturb anything at this stage was to risk more by far than the loss of whole jars or bones; it was to prevent true recording. So we placed two empty baskets upside down over the most vulnerable places exposed, and covered everything with soft soil and left it. I've even resisted the temptation to cover the top of the hole with boards, stone and soil, or in any way to make it look interesting. Fortunately, as I came out of the hole my attention and that of the workers was immediately called to the little pit less than a yard beneath the ground surface crammed with a collection of house dishes described on pages 22 and 73.

The following is from a letter written March 25: "The 9th day of work was interesting on the hill. Dr. Robert

E. Speer and members of his family made us a call before it was over. I was sitting in a burial pit studying remains of skeletons, pots, jugs, jars, and lamps when summoned. I spent most of the day there with Metwelli, our most expert Egyptian cleaner. With a little knife and a littler brush, he worked most gently around each object while I sketched, measured, plotted on paper, attempted to photograph, and observed. We have done nothing hurriedly. We have known about this deposit four days and spent many hours with it. Part of the time I asked an assistant to sit with us and make his own notes with which we shall compare before we complete our study.

"We came upon the skull at the eastern end of the pit pretty well preserved and facing south. The leg bones were doubled up presumably in the embryonic position so frequently seen in such early burial. Numerous clay vessels were present with a lamp and a bowl. In the largest jar was a mixture of soil and bones. At the western end of the pit near the legs of skeleton number one, was another skull in less complete condition. The feet bones of number two were up near the chest position of number one. The rock of this pit is easily cracked and dislodged. It may be best to protect the burial with timber and baskets (upside down), and then to break in the top and edges of the hole so as to remove much debris from the enlarged pit and prepare the way for further excavation, for I suspect there may be more of interest farther in. Shoring up is not practicable in this particular place. I have

brought away to our mosk, which we use as headquarters, the clay vessels from the top of the original burial and considerable fragments of bones. The rock, in times past, fell on the grave and did some damage. Skull number two showed a number of teeth, some fallen and others still in the jaw. Pretty good for 3,000 years!

"These silent friends whom we shall seek to treat reverently may be able to tell us a good deal that we would know. If, in the interests of science, the recently deceased are examined, and living creatures inspected in the study of physiology, perhaps we may be understood if we seek to know fundamental human nature better by the aid of these ancient dead.

"A three-day Muhammedan feast closed on Friday the 23rd, which was the date on which we began to dig a year ago at Tell-en-Nasbeh. We had already done eight days of significant work, because of the drier conditions, this year. Yesterday we put on thirty locals beside our Egyptians and staff, and they will begin again tomorrow morning, 'inshallah' (equals the old fashion of writing D.V. in letters). I should like to go as high as fifty locals soon if the work warrants. Then if the results and weather are as I expect, I should close the three months' initial campaign and come home this summer to write up the history of the dig. Packing, storing and shipping will take some time. I am sure our friendly monastery home will take good care of our boxes and supplies, and another campaign could be quickly launched. However, these are the

dreams with which we often deal on Sundays at letter-writing time.

"Our staff so far consists of the director, an assistant from America who expects to photograph, and five Egyptians, one of whom is our very efficient leader of work on the hill, one the chief pottery assembler and helper with survey, three act as gang leaders and handle hoes themselves. Then there is a guard who comes from a different village from our locals and helps keep house and wash pottery. A Ramallah young man helps on the survey with the transit and plane table. A Bireh boy is chief pottery washer. We can all do a variety of useful things, and we can usually eat and sleep well when the chance comes.

"The mosk, or wely, of Abu Meizar at the foot of the hill is a great advantage. It has been swept and serves as a magazine and museum temporarily. In the yard, which has a six-foot wall or more, is a big fig tree and a pair of triple arches parallel with the front wall of the room. We have blocked up two openings in the wall of the yard and put a wooden gate at the entrance. The mosk room has a wooden door. Two hired tents stand in the yard. The six or seven men who stay here nights can sleep in the tents or, if too cold, in the mosk. We bring sweet water in cans from the railroad station at Artuf, two-thirds of a mile away. Shelves have been put up around the interior of the yard and washed pottery placed on them for study and assembly. The day's yield and the layers where found are separately indicated. In fact, our second third of the

Carnelian beads, with a few of crystal. Most are from T. 2. The two at the bottom are held by the original bronze wire.

first month ought to go very smoothly. The organization is harmonious and the good governor at Ramleh promises all necessary assistance at any time.

"In the pottery some good shapes and decorative designs are coming out. Of course, most of these specimens have to be glued together where they have cracked, but we really are gratified with these early days' findings.

"We are situated on a crossroad, passable for automobiles, between Bab-el-Wad and Hebron. Bab-el-Wad is on the good automobile highway between Jaffa and Jerusalem. Not many machines pass this way, but we have had a few visitors already. The train from Jerusalem takes about an hour and twenty minutes to reach us at Artuf Station."

The tenth whole day of full work fell on March 26. It was a lovely, sunny morning with a light, delicious breeze playing with the grain and weeds. We have begun to spread our rows of pottery sherds on the roof of the wely. We began with those of March 20, after which came the holidays. We resumed excavations March 24, and each day's heaps run in order from north to south parallel with the eastern edges of the roof. There is room there for ten or twelve days' income of fragments. A little later in the season we cleared one of the largest of the ruined convent rooms on the eastern edge of Rumeileh of its weeds and made there another outdoor collection of stratification studies of sherds. It held, easily, three weeks' worth of basket loads. Before closing the season's work we

took all these to the palatial house (level IV.) at the south of the diggings and laid them, with dated tags placed in tough envelopes, in a long, narrow room which I have dubbed "the corridor of time."

It was on this same date that we came on the first sign of T. 2. Above the mouths of this system (T. 2, a. and b.) in room II. 9, and in the immediate debris was a varied mixture of fragments which clearly are in no relation to the burial contents except that of accidental superimposition as extra-mural. In our early days of working about this spot we found such divergent types as fragments of ledge handles, rope moulding, pseudo-rope moulding, bits of red paint, a few beads, a few bits of iron ring, a flat piece of bronze formerly a knife, or razor, a fragment of the base of a brown jug with pattern of incised dots (ascribed to 1800 B.C.). This mixture was in contrast to the more orderly contents of the real burial pits beneath.

So far the characteristic late Israelite age pottery is, in the main, undecorated, and shows the prevailing brown and reddish tones with some grayish and cream surfaces. The pottery of that time was made for wear, well baked, often burned within the fabric. There was a great variety of shapes and sizes. Certain of the very large heavy jars and cooking pots did not appear in such numbers as we found at Tell-en-Nasbeh, but there were many jugs, saucers and dishes. Perhaps there was a greater sprinkling at Beth Shemesh of the rarer specimens of decorated ware painted in stripes, bands, etc., and a very few freer de-

signs than usual. The tones of color in pottery resemble often the tones in the rocks and soil in the neighborhood of a site. And this very natural observation may perhaps be made throughout Palestine.

Enough whole dishes were found in tombs to do away with the theory that dishes were necessarily broken when placed beside the remains of the broken human. Used and unused specimens were found which show that both new and old dishes were freely used. Enough sealed jugs were found to suggest that sealing of containers was not rare. In general, the people put their choicest wares with the burials, as well as a good share of utility shapes and sizes. The largest and smallest vases and other objects were to be found in tombs. By running over the catalogued and pictured list of articles of pottery, bronze, and alabaster found in the cemeteries, one gains an impression of realism, variety, delight and affection in the services rendered to the deceased when buried. There was crudity in the close contact of earth with skeletons and roughness in handling of previous unrelated burials. If any wrappings were used we found none.

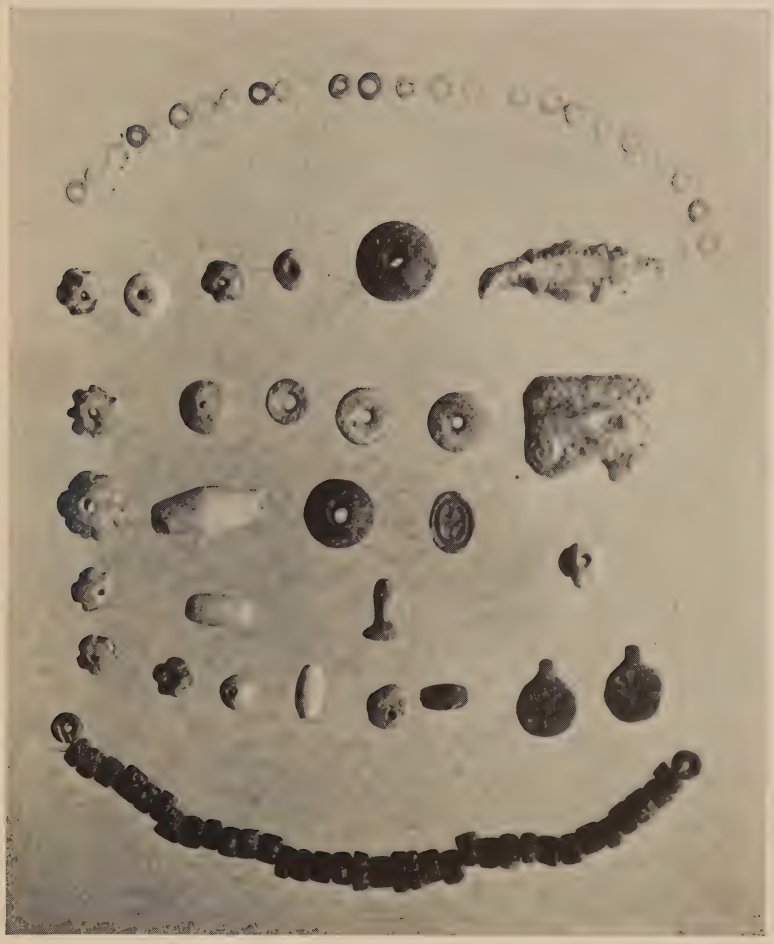
March 27 gave us a taste of sirocco breath presaging a warm season. The sun was very strong for several days. We scarcely have an intermediate season in this region, but are liable to siroccos very shortly after the cessation of the rains. We do not usually expect the fiercest heat before May. (See the weather chart for April 24.)

March 28. Wind changed entirely to a delicious westerly breeze with appearance of being rainy.

March 30. Warm day. Set Abd-er-Rahman and Metwelli to finish burial pit No. 2, as we shall need it first for rubbish. Removed some good specimens to the wely, jugs, dishes and bones. Found an amethyst bead in the sifting. Another letter, dated March 31, 1928, evening:

"The breaks have certainly come the Haverford Expedition way today—and the whole ones, too. By which I mean that out of one cave we have taken scores of vessels, perhaps twenty of them complete. These are of the late bronze period.

"We are still at the work of clearing our selected area outside of the city walls and preparing for the debris which we shall take from within the city and its successive strata when we can go there. After the city's defenses were dismantled the poorer houses of the later Israelite period overran the walls and city limits in the direction we are digging, west and north of west. Two meters under the floors of these houses, bins, etc., as we clear to the rock, we find a honey-combing of the surface and, underneath, a tunneling of caves and pits with several outlets. In these caves, burial remains come in clusters with bones and jars, lamps, bowls, juglets, pitchers, vases, jammed tight and partly crushed by the age-long falling of the soft rock of the walls. It is amazing that any whole specimens remain, but they do and in most attractive shapes. Decoration is



Beads and amulets of faience, or paste.

usually lacking on the surface, but the shapes are often most pleasing. Beads, scarabs, bronze implements, needles, pins, rings, usually heavily encrusted and broken, are mingled. A large skull fairly well preserved, with its complement of dishes, was provided with a spearhead of bronze, presumably the weapon of the deceased. Most of the bones were very far gone.

"It takes days to study and clear these caves, and the soil is put through fine sieves. Weeks may easily be used up if the run of burial deposits continues. The jars outlast most of the bones. When thoroughly clean these caves will receive much stone from the debris of the hill. The fields of the villagers will be turned into gardens. Only two or three laborers can work properly in a cave at the same time. Twenty-five or so are at the moment stripping off new surface above us and penetrating beneath the lesser structures of the suburbs to where these interesting rock-surfaces may be disclosed. On the way down through the debris and masonry our survey continues, and drawings are made of every structural feature. This is where photography and measurements with the tape are brought to bear and records kept of the day's progress.

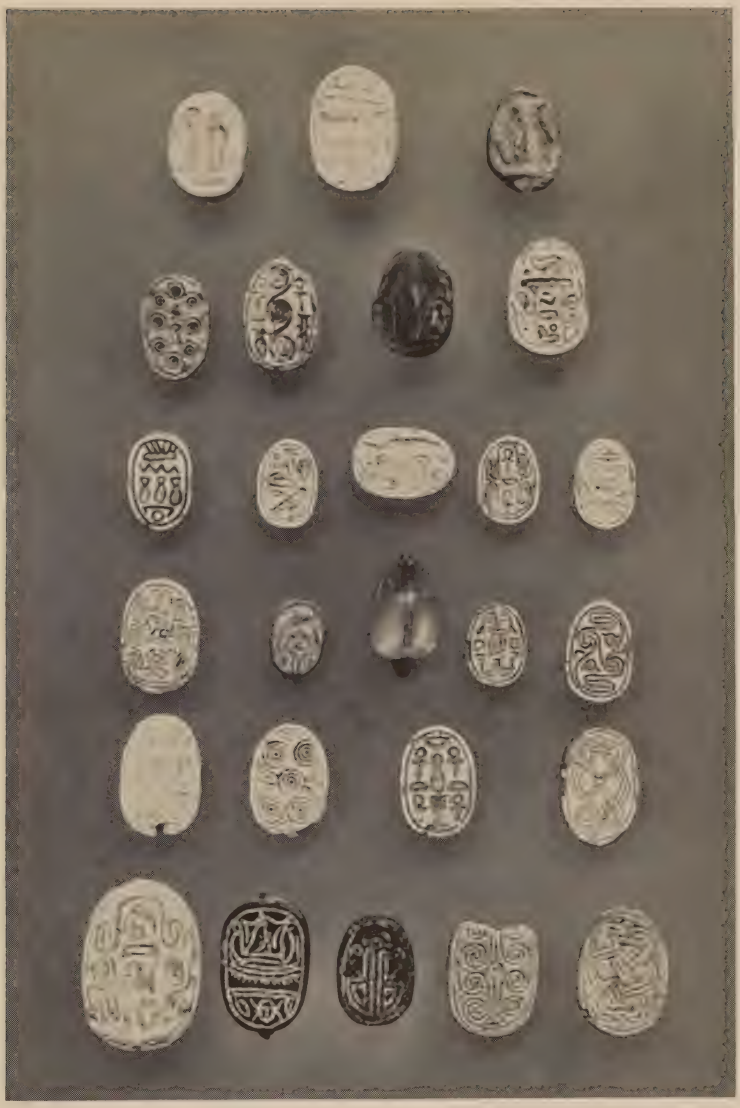
"Today was pay-day and certain gratuities were added to the wage for faithful work, ranging from three cents to twelve for the week. It means much to have every scrap and fragment, every bead handed over to us.

"Down at the mosk yard a ton of sherds have been washed and are laid in rows according to the date and level

where found. Frequently the washer looks up, pleased, and exhibits a piece of painted pottery, Cypriote, Philistine or Helladic. We all take a hand at assembling the fragments, but the most significant pieces are cared for by an expert Egyptian who restores many a jar to its former shape. All must be drawn to scale, in facsimile and cross-section and registered. And this is but the fifteenth day of actual digging counting out holidays."

April 3. Evening. "Our good fortune refuses to stop. Palestine, as usual, is treating me well. A perfect nest of new burials found today. Boulos said it must be a family burial, but more likely it is that of a tribe. Such a wealth of pots, jugs, dishes, lamps, bowls, etc., in all states of repair, with over a score of good ones; they must have used the place many times. We have finished our extra-mural digging, I think, for a time, except for these caves. Now we can go within the city and do a similar amount of surface there, as we have the needed dumping-ground for the debris. My Jerusalem errands are piling up and the Egyptians want their pay in a form convenient to send home to Egypt, so I'll take a few hours for it tomorrow if all is well.

"I've asked the boss to take the workers away from the caves and put all effort within the city walls. We've removed all that is in sight from the graves and hope no one will be curious as we appear to desert it for the present. That will give us a little time at the wely to catch up with the flow of important results in dishes. Bits of bronze,



Scarab in middle of top row is from T. 1. Those either side of it are from city debris. Second and third rows are from T. 2. Lowest three rows are from T. 3.

beads, tiny bronze rings, scarabs, continue to come from the loose soil around the burial deposits. Weather is very comfortable, another reason for diligence. Eight o'clock and supper."

By April 9 we had recorded finding pottery from each of the three bronze ages, early, middle and late, in the debris outside the city walls, near and within the pits which contained burials and, of course, iron age fragments, early and later down to the Assyrian invasion. Pottery sherds from five ages, therefore, had come from that one general eastern sector without the wall. T. 3 had not yet been found. T. 2 was yielding styles generally dated c. 1400 B.C. and T. 1 somewhat later pottery. T. 2 was the first funeral collection to yield beads and scarabs, but T. 1 caught up with it.

On April 10 our Deir Aban workers struck for an earlier closing hour, wishing to leave at 4.30 P.M. This gave us a chance to clear up certain details in the burial area with the help of our few remaining laborers who are very dependable. On the next day we had locals from the villages of Sara'a and Ishwy, and on the third day the Deir Aban contingent was back. The men blamed the women for the affair. The women blamed the men. Both were right.

April 16. I am feeling particularly sensible today of certain evidences of loyalty and energy on the part of my more intimate native staff. Yesterday they pushed on throughout the day at special tasks. This morning Hus-

sein Serhan of el-Bireh handed me a bit of black mud sealing from an ancient jar top. On it is an Egyptian scarab-shaped seal impression. The village locals are singing lustily on the dig:

"Mā ḥāṣālly , Ɣōm ed dilly
Ɣōm ilā yōm , Ɣōm mā bān
'Alal jiddān"

In the enthusiasm the women began throwing back their empty baskets inconsiderately and got some of them returned in a burst of masculine temper—bang, curses, tears, order.

A professional photographer is to come to the works tomorrow to help me catch up with certain special needs. My little quarter-plate Voigtländer is doing some very good work. The day is closing up well. Most days do. For every wretched thing there seems to be some compensatory advantage. I almost welcome the difficulties, for as they are overcome I am curious to see what the ensuing benefit is to be. We are striking down into the third level of the ruins and finding materials from the Early Iron Age.

April 17. Wonderful banks of fog in the valleys quite buried Beth Shemesh and much else in the billowing white masses as I looked down from Beitgemal. Two peacocks are howling like exaggerated cats.

Much special photographing of pottery was done today, in fact the entire day was pretty well given up to it.

UPPER: May 7. Looking north from city wall along eastern scarp to southern wall of the temple. Compare frontispiece.

LOWER: April 18. Looking south. Survey party is on the city wall. T. 1 and T. 2 are between that and the dump heaps.

It was a shocker to learn subsequently that most of the effort went for nothing.

The following was scribbled on the train on the 18th, as I went to Jerusalem to learn the results of the pictures. The thirty-seven kilometers by rail was a change from the kind of activity we knew at the hill. "Work goes well. If I can keep up speed at the works and yet begin to slow down a bit myself, I shall do a better job of it throughout and be in trim to go home and work on the notes. I should have two more skilled helpers.

"In a few places we see level IV. and the original rock floor of the inner city. It's a very rich site. I'd like to dig the entire hill. Perhaps in the summer or autumn of 1929, who knows!

"Our pottery findings count up remarkably already. We have what may be a temple, a sacred stone and socket, an Astarte head; animals, rattles, weights, needles of bronze, pins, spear-heads, knives, tiny juglets and enormous jars and all between. Among other things found are weights for looms, stone grinding mills of the flat type with stone rubbers to match, vats, presses, floors, bins, and a horse's head with bridle, perhaps the ancestor of 'Spark Plug' of the comic strip in newspapers nowadays, all ancient. Then we have a dozen kinds of bugs, flies, fleas, etc., all modern, looking out for A number 1.

"These poor people, the peasant workers, how good they are and with so little! I think they do very well. I hope we shall remove some of their fears and give them

good garden land for next year. We have had a wonderful rush of holy days and weeks. It must be hard on business. Still there are the other things and especially if people prefer them.

"There are plenty of garden vegetables at the Beitgemal table, fresh peas, lettuce, beans, romaine. They serve about twenty kinds of maccaroni, besides lentils, cheese, wonderful soups, the freshest eggs imaginable and whole-wheat bread. Big green almonds have come in. The native people like these.

"Now we are nearing Jerusalem. The train jigs. Can you read it? Breezes blowing. Farewell."

We started the morning of the 19th very humbly and modestly hopeful since we had learned that a day's efforts in photographing pottery, though professionally conducted, had been largely wasted because the plates and films were older than they should have been when sent from the West.

On one of these days our workers drank 120 gallons of water. Women brought the twenty-four, five-gallon tin cans on their heads. Now we've a donkey boy with his beast, who brings the water from the railroad station. They manage four tins a trip.

I asked my guard at the wely to set out one of our antique stone bowls with water for the birds. He snickered and felt very foolish all the time he was doing it. It is a wonderful privilege to have the use of this cool "wely" (mosk) for drawing work, registry, and as a temporary

Found in the temple. Astarte head, votive animal figurine, and a cylindrical seal. Two copies of seal impression shown below.

museum. We value also the convenience of the walled yard, which holds the two tents and all our pottery washing.

Every now and again a feast or some other special reason cuts down our work force for a day. Saturday last we had seventy-two locals besides our Egyptians. Today we have thirty.

After the locals had started down the hill Saturday evening, the Egyptian boss and a worker called me to see a copper shovel which was sticking in the side of a cutting of earth they had made. It would make a good model for a modern hearth set. (137.)

April 25, and we are securing from within the city certain specimens of ware like those in the tombs. Just now, 5.15 P. M., Hussein brings me a lentil-shaped flask found on the 23rd, intra-mural, very similar to two taken recently from T. 1 and T. 2, respectively. They are decorated with red paint on a cream white slip, over cheap gray ware, and there are white grits in the clay.

This three days' heat has been severe. The thirty-four fellahin felt it keenly. On the worst day we closed work at the hill at 9.30 A. M., since the combination of wind and heat was insufferable. Our count of workers fell off badly, but now it is cooler and they are coming back. I am full of admiration for the human organism that can work ten hours in the broiling sun and withering wind, with sand and gravel and heavy rock, and do it with cheerfulness and song, with scanty fare and scarce knowing

what it is all about: this mysterious carrying of tons of soil to make a little hill that will soon be carried back again.

Every morning I look from my room to the hill of old Beth Shemesh to see whether the workers are there. I can make out motion as they and the sunlight flash together. How dependent we are on these humble fellahin! If not enough women come to carry away baskets of dirt, we have to reduce the force of men. So we are really dependent on the women to determine what our day's total shall be. Some excavations employ boys as basket carriers, but we prefer the work of the women.

Six days, recently, have doubled our collection. Room! Room! We must compact all our storage facilities.

I hear that the el-Bireh people want to come down and work. Well, I may let them if the harvest, or anything else hereabouts, cuts down the working force dangerously. Deir Aban is our chief dependence and supplies us good workers, who are, strange to say, great talkers.

Seldom do we have visitors, and doubtless we save much time on that account. A few agreeable and stimulating inquirers have come our way.

Within the old walls of Beth Shemesh we essay to call the great building, which runs east and west, the temple. There are two rows of column bases parallel with the long diameter, and at the east end of the long room, about midway in the short diameter, against the back wall, is a round stone base on which the figure of the divinity may

have stood. Patches of white lime flooring were found in the passage between the rows of column bases leading up to this round pediment. The building faces the sunset. At a lower level, and north, it contains another row of bases. The excavation is incomplete. May 3 we found two little clay animals, possibly deer or gazelles. The more perfect has head, horns, ears and prominent throat gland. See page 97.

One may compare this temple with that at Balata (Shechem). Much fine stone must have been lifted from the structure for later building uses, and we are fortunate to have as clearly defined lines as now exist. A full moon on this date at 6.30 P. M. was an interesting observation in this year of a prematurely dried grain crop, which compelled an early and not very profitable wheat harvest.

"But the most striking and characteristic feature of Philistia is its immense plain of cornfields, stretching from the edge of the sandy tract right up to the very wall of the hills of Judah, which look down its whole length from north to south. These rich fields must have been the great source at once of the power and the value of Philistia, the cause of its frequent aggressions on Israel, and of the unceasing efforts of Israel to master the territory. It was in fact a 'little Egypt.' As in earlier ages the tribes of Palestine, when pressed by famine, went down to the Valley of the Nile, so, in later ages, when there was a famine in the hills of Samaria and the plain of Esdraelon, the Shunamite went with her household 'and sojourned in the land of the Philistines seven years.' In that plain of corn, and those walls of rock, lies the junction of Philistine and Israelite history, which is the peculiarity of the tribe of Dan. These are the fields of 'standing corn,' with 'vineyards and olives' amongst them, into which the 'three hundred "jackals" ' were sent down from the neighboring hills. In the dark openings here and there seen from far in the face of those blue hills, were the fortresses of Dan, whence Samson 'went down' into

the plain. Through these same openings, after the fall of Goliath, the Philistines poured back and fled to the gates of Ekron, and through these the milch-kine, lowing as they went, carried back the Ark to the hills of Judah."

By Arthur Penrhyn Stanley

"Sinai and Palestine," p. 326, A. C. Armstrong and Son, 1903.

On page 103 is illustrated the fragments of the incense-burner stand, a clay object with base and three-story upper part simulating window openings perhaps. We are indebted to Dr. Aage Schmidt, of Copenhagen, for the negative of this piece. For a similar example, see the *Archiv für Orientsforschung, Band III, Heft 1.*, Jan.-Feb., 1926, page 25b.

Clay stand for incense burner. When whole there were three rows of window-like openings. Found in temple. (Photo by Dr. Aage Schmidt.)

Egyptian rëis standing on the second of the circular stone offerings tables. Below this one, right, is seen the opening of a pit.

May 7

Registry numbers 711 to 718 are of objects found at the temple.

711 is a seal cylinder of blue glazed paste of which the diameter is 13 mm. and the length 31 mm. On it are figures of a deity, stag looking back, and a tree. See page 97.

712 another cylinder, blank, 16d., 35 l.

713 a stone weight, 20d.

714 a flint saw, 53w.

715 a flint saw, 28w.

716 a whorl, or button of paste, 25d.

717 a stone model of an eye, 35 l., bevelled at the edges and with an eyeball of white paste inlaid.

718 a circular bronze disc, 100d., with a tiny hole in the centre, molded or beaten to pattern with gracefully curving section, use unknown, possibly a cover, a pectoral, or even a cymbal.

Previously there had been found, on May 3, registry No. 517, a bronze implement 117 mm. long, possibly a razor.

April 7, registry 201, the astarte head, clay, 50 mm. + l.

Besides these there were numerous fragments of clay objects, a standard of a lamp in a saucer, a Philistine crater, shattered.

A cylindrical jug with two pierced lugs, the side of a small painted flask, a fragment of a small, dark, red pitcher, the fluted handle of a vase, two heads with beak-like faces, a tiny juglet, and bronze bracelets or anklets, one of them with lapped joint, see Registry Nos. 514-516.

We may include here certain measurements of objects in the nearby open-air sanctuary of an earlier time.

The round sacrifice stone:

Circumference 484 cm.

Diam. 150 cm.

Thickness varies 16 cm., 22 cm., 25 cm.

Carved drain 103 cm. to the edge of the basin, 8 cm. at broadest where it enters the basin.

Basin 43 cm. x 31.
Single Cup-Mark 8 cm. diam.
Double Cupmark 10 cm. each.
Groove between the two holes of the double or twin cupmarks 4 cm. length.

There is a finely cut shaft, two meters deep, east of the table in the rock, and there is a rugged natural pit north of the table stone. This was, apparently, holy ground always. Though the great building moved to the north.

Another and similar stone to the south-east measures:

Diameters 160 cm. and 145 cm.
Thickness near end of longer diameter is 33 cm.

It lies 3.60 meters beneath the wheat and from its top to bottom of a natural pit near it is 2.40 meters.

This second table stone has a rough surface and is set in cement. Beneath it the debris has bits of decayed bone. Pere Vincent picked up a tiny bit of black burnished Middle Bronze Age ware.

The baetyl of chipped lime-stone is very hard and of the variety known as mizzy. Its length is 150 cm. and its greatest circumference 150 cm.

In Rm. II. 56, immediately above the two huge storage jars which stand in a corner of the room is a limestone socket apparently belonging to the baetyl. It is 60 cm. thick and is 90 cm. each way across the top and has a socket in the middle which is 28 cm. deep and 31 cm. diam. across the top of the opening each way. We did not attempt to fit one to the other but can easily account for 18 to 20 cm. of the tip of the baetyl in the socket and presumably the other 8 cm. would fit fairly well.

Another stone, possibly a baetyl, was broken. It tapers from 38 cm. thick where broken to 30, half way along to the rounding end. What remains of it is 85 cm. long.

May 3. Just under the south wall of the temple at the lowest level and within the city we found a flat stone rubbing mill of basalt and its rubber of the same material, also a small quantity of charred wheat.

There were 56 fellahin at work today and 64 yesterday.

May 17. Today we dropped to 33 fellahin which warned us again of impending shortage of labor. Two rooms at the east end of the temple, and outside its back wall, were respectively 5.30

meters deep (northerly one) and 5.50 meters to the rock (southerly one). We began filling them.

Rm. II. 25 where we found seven large clay balls, perforated, presumably loom weights, may have been a weaving room.

Just north of Rm. II. 7 was a late Israelite pottery cluster which included registry item No. 202.

The ḥamoolies, or tribal families of the village of Deir Aban are named, Al W'arah, Al Hanēl, Al Kerāmleh, and Al D'āmseh. The first two are owners of the land over which we worked.

SPECIAL REFERENCE LIST

Qtrly. = The Quarterly Statement published by The Palestine Exploration Fund, London, 2 Hinde St., Manchester Square. A most important journal.

P.E.F. = The above society, its work and publications. Secretary for America, Prof. W. M. Randall, 55 Elizabeth St., Hartford, Conn.

G. = The Gezer volumes published by the above and written by R. A. S. Macalister the explorer.

H. = Harvard Excavations at Samaria, 2 vols., pub. 1924.

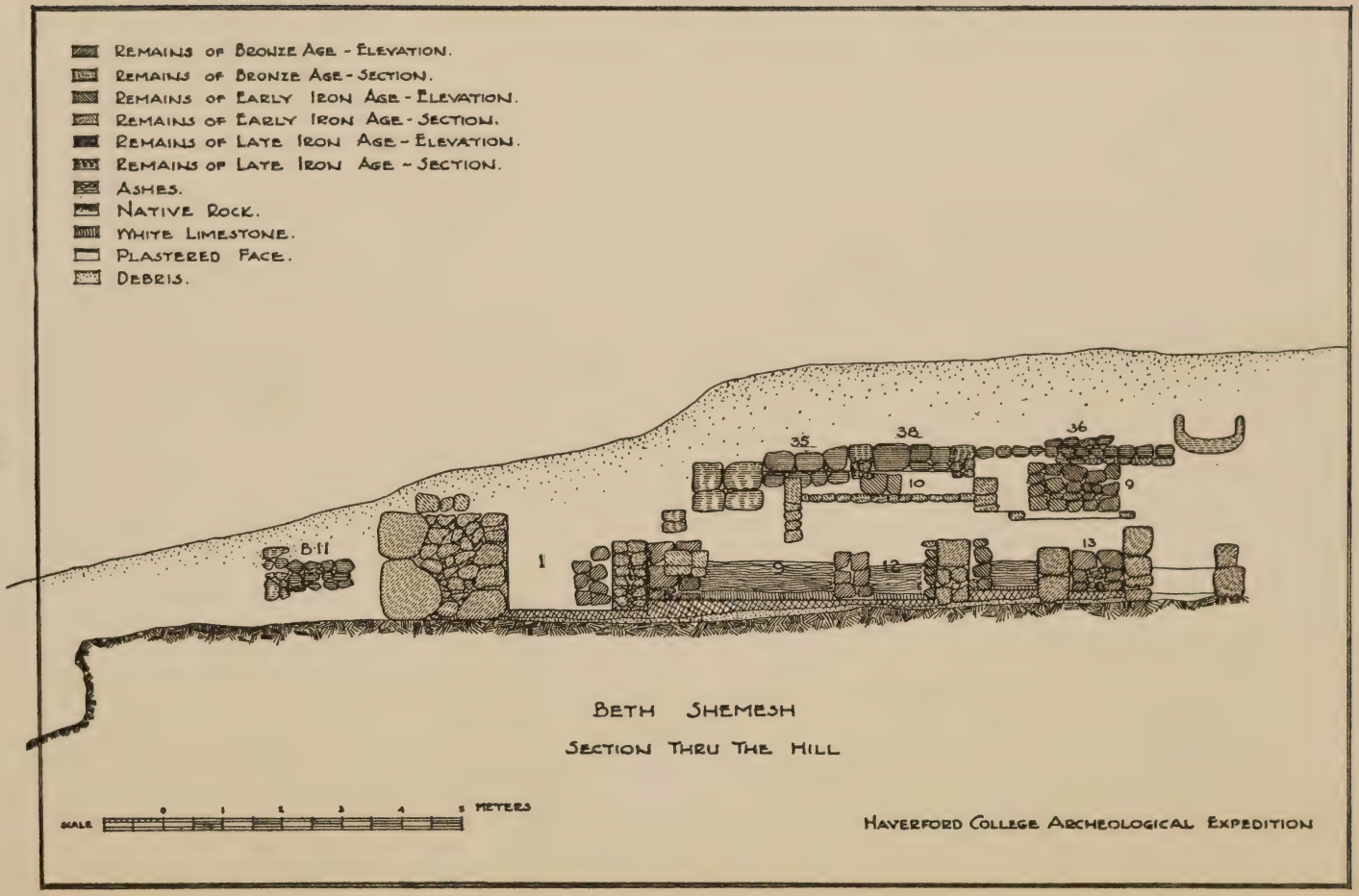
A.S.O.R. = American Schools of Oriental Research, Jerusalem and Baghdad and their work and publications, Secretary-Treasurer George A. Barton, 43rd and Spruce Sts., Philadelphia.

P.M.B. = Palestine Museum Bulletin, Nos. 1 to 4, 1924-1927, Jerusalem.

Gjer. = Einar Gjerstad—Studies on Prehistoric Cyprus, Uppsala, 1926.

B. = F. J. Bliss, A Mound of Many Cities, Macmillan, 1894.

C. = Corpus Vasorum Antiquorum, Union Academique Internationale, Champion, Paris.


Remains of Bronze Age - Elevation.
Remains of Bronze Age - Section.
Remains of Early Iron Age - Elevation.
Remains of Early Iron Age - Section.
Remains of Late Iron Age - Elevation.
Remains of Late Iron Age - Section.
Ashes.
Native Rock.
White Limestone.
Plastered Face.
Debris.
B 11
1
9
10
12
13
35
38
36
Beth Shemesh
Section Thru The Hill
Scale
0 1 2 3 4 5 Meters
Haverford College Archeological Expedition

ABBREVIATIONS USED

The Roman numerals II, III, IV are conventions for indicating the three main levels of work, counting from the top of the hill downward and leaving I to indicate the surface before excavation. Arabic numerals following these level numbers generally mean rooms, as III. 14.

C = cistern.
B = bin.
Rm. = room.
X. = debris.
T. = cemetery, as T. 1, T. 2, T. 3; subdivisions of the cemeteries by added letters or specifications as T. 2 d. or T. 1 tunnel.
T. 1, etc. = the transition cemetery, youngest of the trio.
T. 2 etc. = the late bronze age cemetery.
T. 3 = the middle bronze age cemetery.
Bronze = a convenient term for civilization of the Canaanites between 2500 B.C. and 1200 B.C.
Iron = a term for the period 1200 B.C. to Roman times. At Beth Shemesh actually from 1200 to about 700 or possibly 600 B.C. and including the control of Philistines and Hebrews.

Measurements are generally metric. The photographs of pottery are from negatives taken on the ground and reproduced without retouching. The engravings of these are by half-tone process on copper. The engravings of precise drawings of objects are on zinc. Where the left side of the drawing is not adequate to give a complete notion of the surface ornamentation, liberty has been taken to extend the representation to the right side, or section side of the drawing.

Scales are placed near, often above objects as drawn and apply to adjacent objects until the scale is shown as different. Twenty centimeter strips are often photographed with the pottery.

When one comes to the registries of objects, whether from city, suburbs, or cemeteries, it is to be understood that objects are usually of clay unless specified as of other material. The place designation continues the same as last mentioned until a change is noted. Objects without registry numbers are usually in a fragmentary condition.

Measurements of small objects are in millimeters. The abbreviations used are fairly obvious: frag. = fragment; sm. = smoothed; lt. = light; br. = brown; gr. = grey; dk. = dark; dec. = decorated; ns. = no scale; surf. = surface; d., w., h., l., etc. = diameter, wide, high, length, etc.

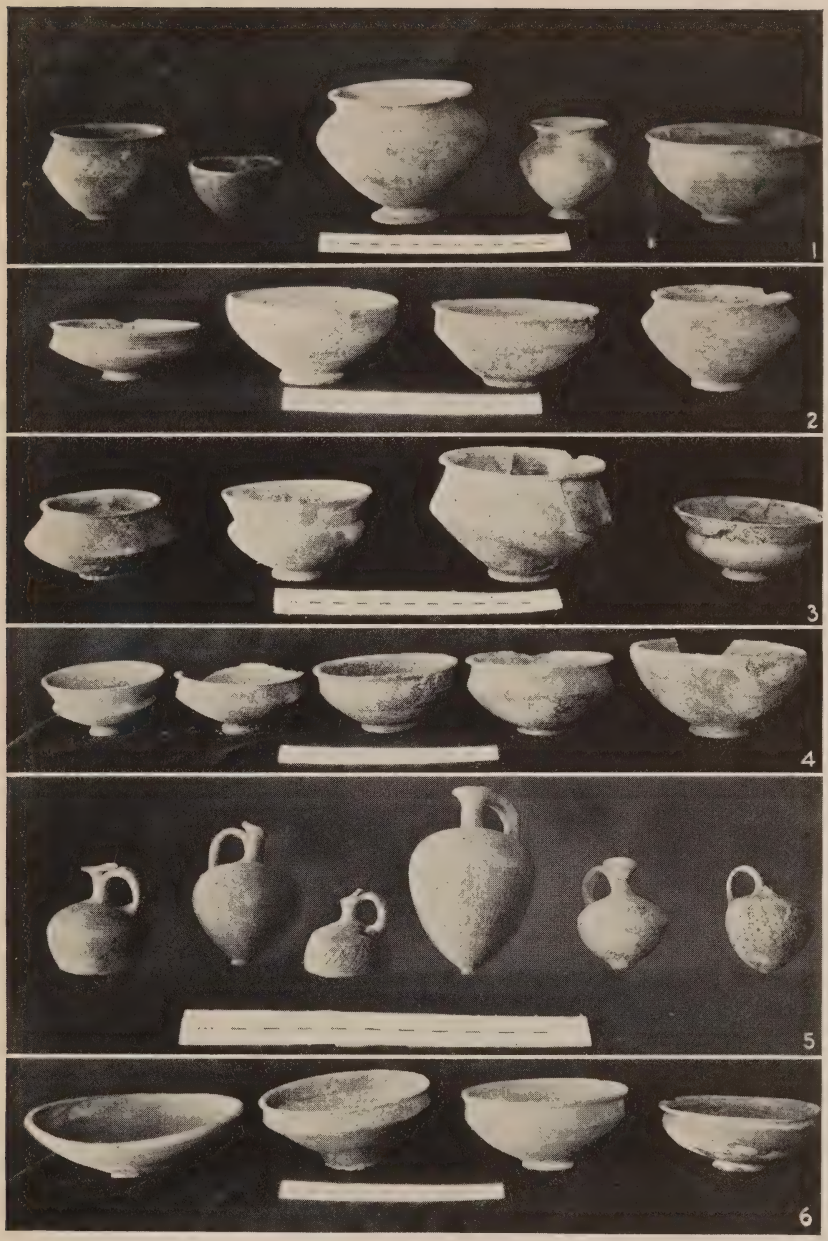
Punctuation in registries is often omitted.

The official registry of numbered objects was handed to the Department of Antiquities at Jerusalem and a carbon copy was kept by the explorer.

No. 374, found in IV 9. Standing in angle of the room. Fine house nearest T. 3.

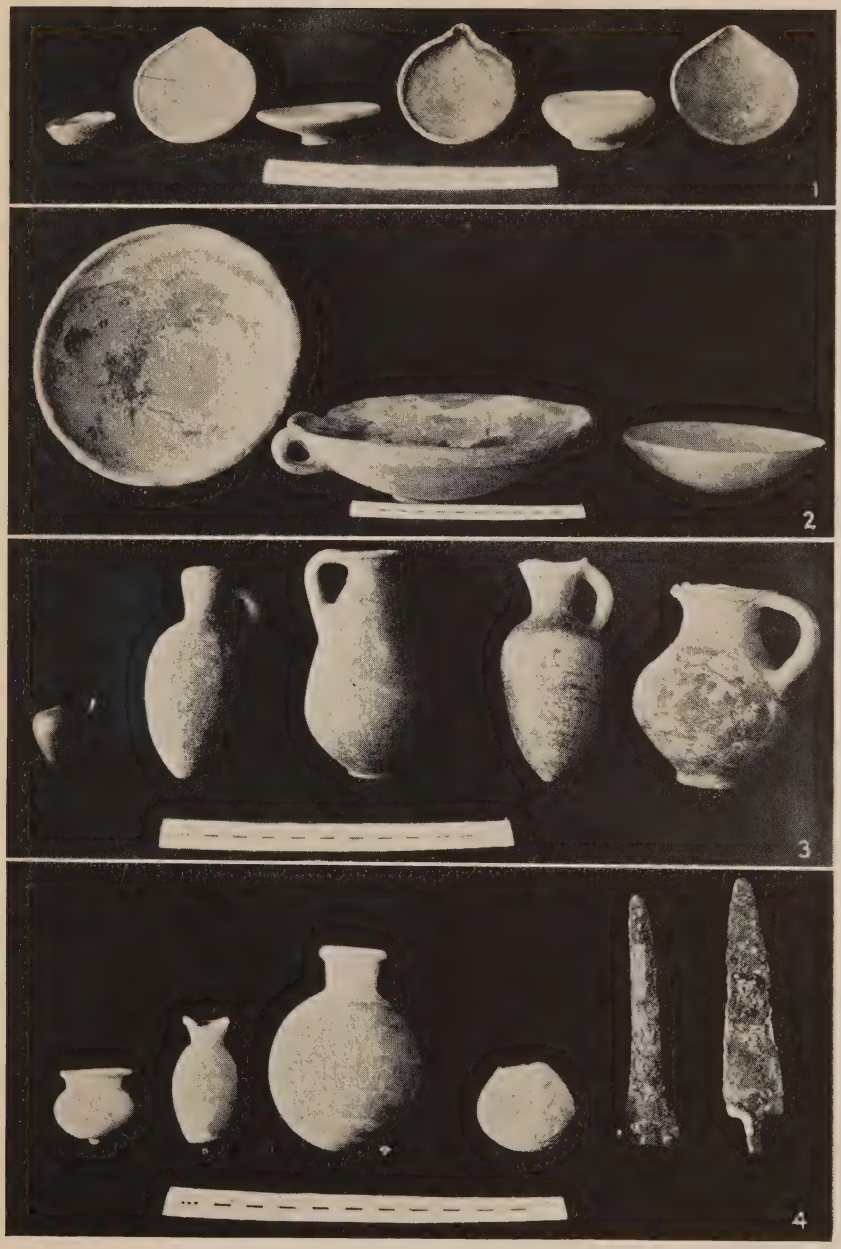
Cemetery T. 3. Interior. The middle of the cave as first entered.

Clay vessels from T. 3. Cemetery of The Middle Bronze Age.

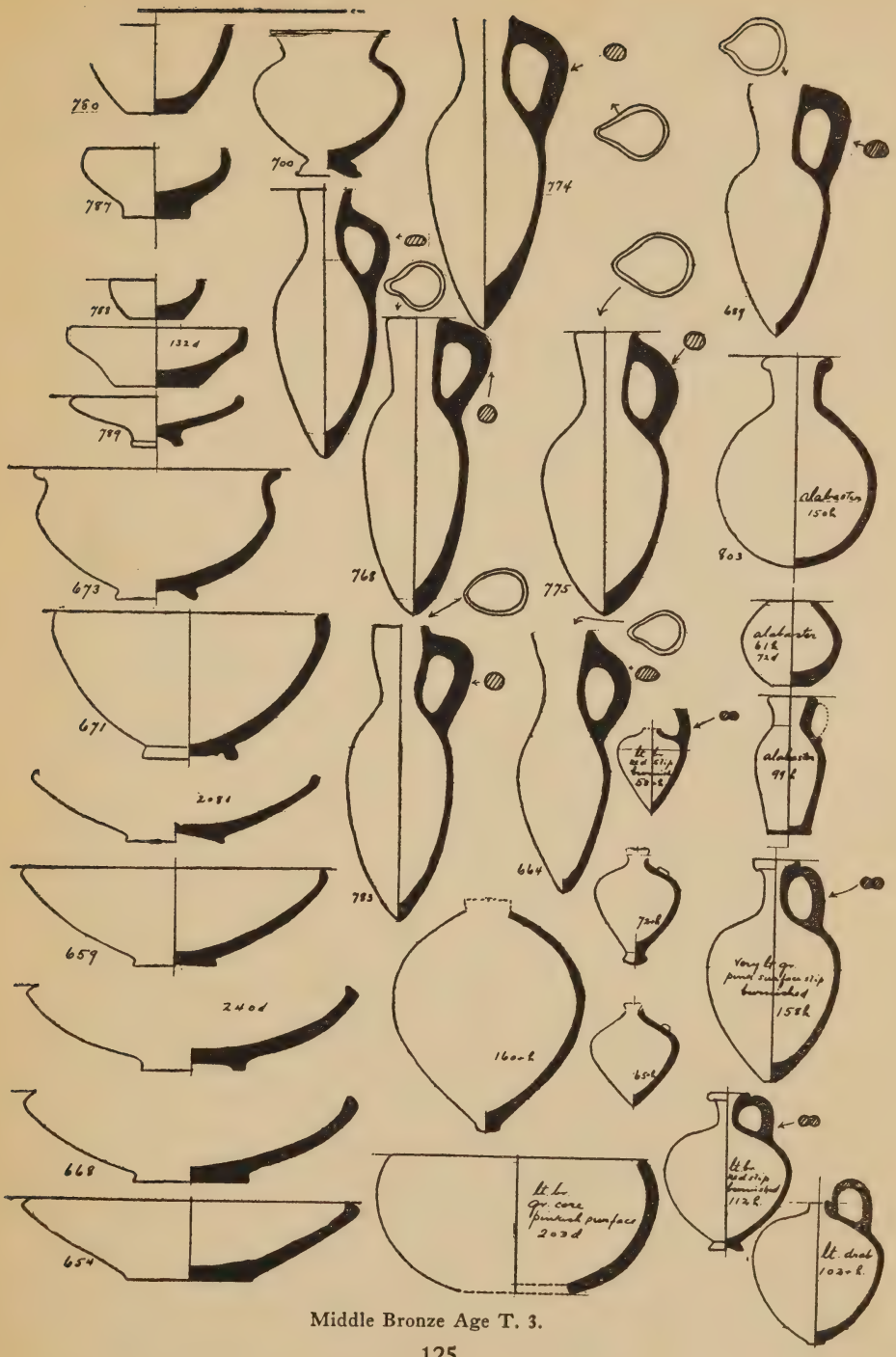


T. 3 Pottery of Middle Bronze Age.

T. 3 Pottery of Middle Bronze Age.



1, 2, 3. Show pottery from T. 3, Middle Bronze Age. 4. Alabasters and bronzes from the burials.



Middle Bronze Age T. 3.

Materials found in T. 3 are illustrated on pages 115 to 123 for the photographic reproductions and pages 125 to 131 and 133 for the drawings.

For Middle Bronze Age analogues see P. M. B. 2 and 3. (1926).

Objects in T. 3

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No. 649. May 5-7. Jug. 138h. Greenish drab paste, friable, dec. dk. br. or bistre on cream white slip. The markings, not colors, suggest P. M. B. 3. Pl. VII. 7..... 127

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No. 651. May 5-7. Bowl. 132d. Very lt. drab gr., ivory slip, worn, patina..... 129

No. 652. May 5-7. Bowl. 168d. Lt. br., combed about lower body, surface worn..... 129

No. 653. May 5-7. Bowl. 139d. Gr., ivory cream slip, same workmanship as 681..... 129

No. 654. May 5-7. Open Dish. 242d. Lt. br., white grits, flat base, eroded..... 125

No. 655. May 5-7. Open Dish. 281d. Lt. br., traces red slip, sunburst burnishing inside radiating from center of bottom to rim, patina..... 121, 131

No. 656. May 5-7. Open Dish. 182d. Lt. br., eroded rim (from escaping salts?)..... 131

No. 657. May 5-7. Open Dish. 294d. Lt. br., warped..... 131

No. 658. May 5-7. Open Dish. 253d. Red brown..... 131

No. 659. May 5-7. Open Dish. 223d. Reddish br., combed on lower body, nearly flat ring base, patina..... 125

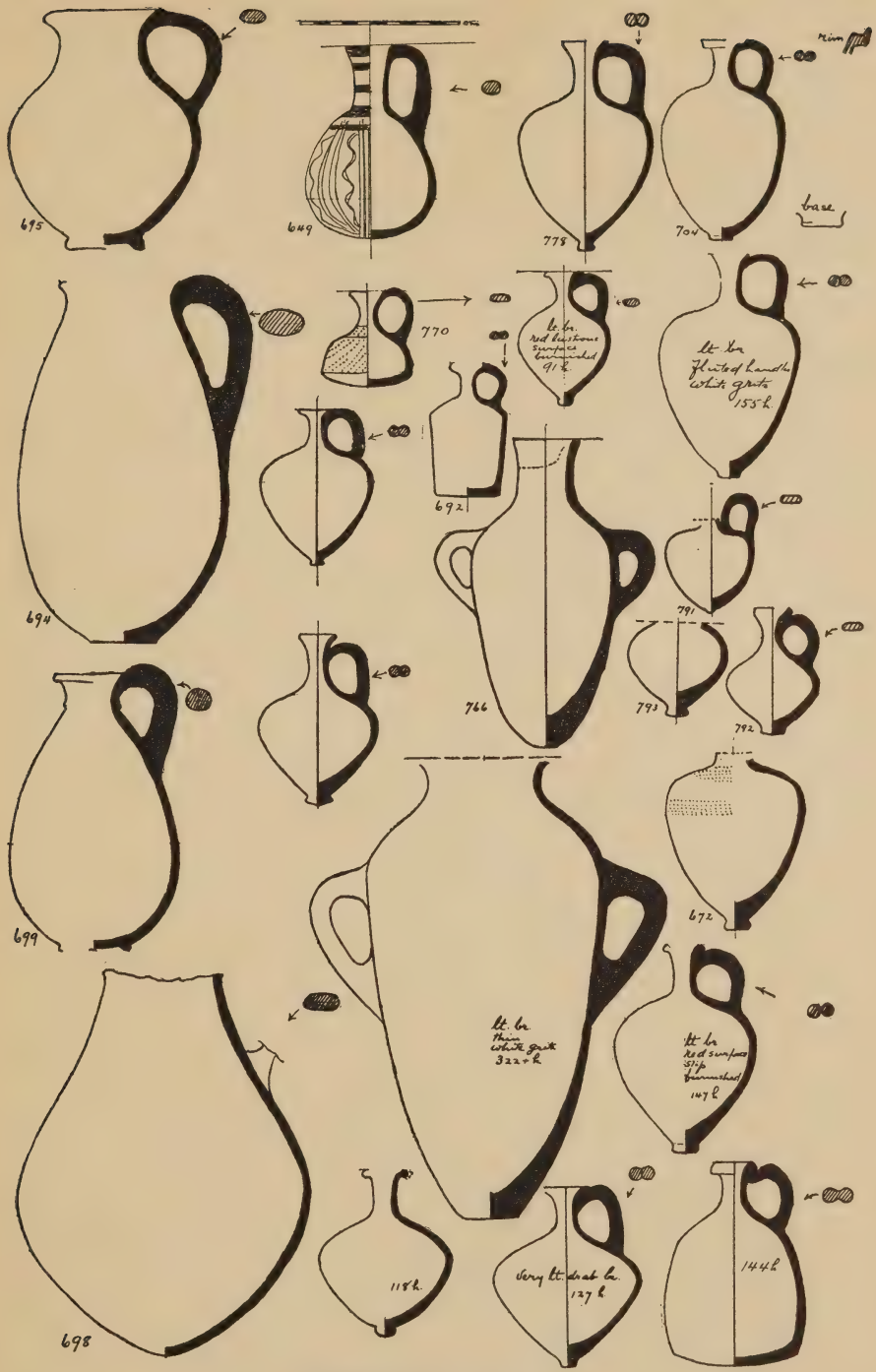
No. 660. May 5-7. Bowl. 164d. Much patina..... 129

No. 661. May 5-7. Bowl. 180d. Lt. reddish br., combed about lower body, nearly flat base..... 129

No. 662. May 5-7. Jar. 315h. Lt. br., white grits..... 131

No. 663. May 5-7. Bowl. 193d. Red, sandy, encrusted.... 129

No. 664. May 5-7. Dipper Jug. 186h. Another measure 209h, reddish..... 125



Middle Bronze Age T. 3.

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No. 665. May 5-7. Jar. 545h. Lt. br., 2 handles, parallel combed lines on shoulder 131
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No. 667. May 5-7. Bowl. 158d. Gr. br. 129
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No. 669. May 5-7. Bowl. 138d. Lt. br. 129
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No. 677. May 5-7. Open Dish. 248d. Lt. br. 131
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No. 681. May 5-7. Bowl. 222d. Lt. br., gr. core, thin strong ware finely made true ring base burnished both ways, mended 131
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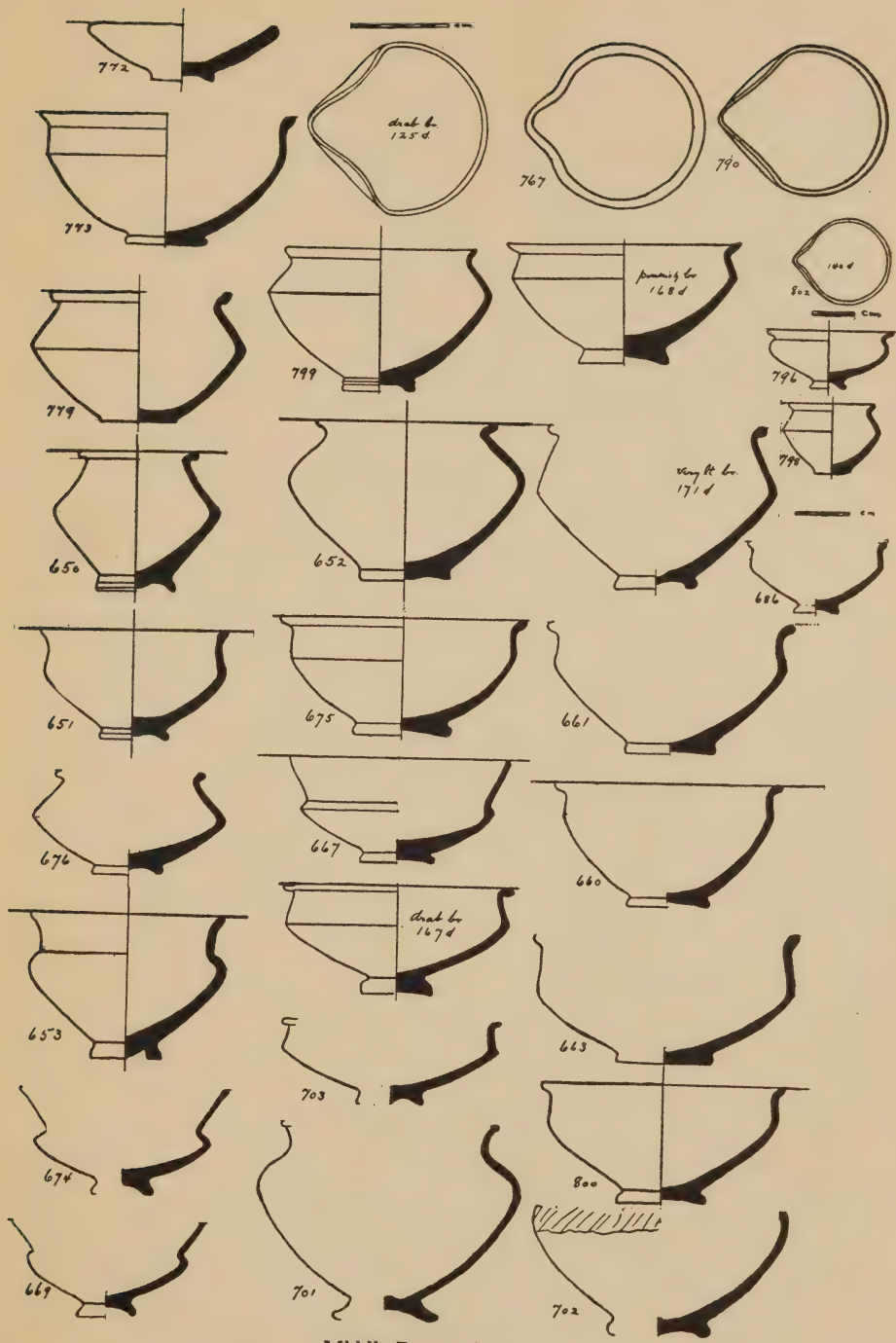

Middle Bronze Age T. 3.

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No. 688. May 5-7. Open Dish. 267d. Lt. br., warped 131

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No. 695. May 5-7. Jug. 168h. Lt. br., partly polished, encrusted salts on rim, patina 123, 127

No. 696. May 5-7. Jar. 830h. Drab sandy, wet sm., used for storage; 2 pairs handles, reinforced with ropes of clay at base of handles. 2 groups of combed lines about shoulders, one contains 6-8 grooves and is immediately above handles; other half way fr. that to rim contains 9 grooves. Over this latter are traces of a mud sealing. Jar contained sediment of light yellow substance in flakes 115, 131

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No. 699. May 5-7. Jug. 195h. Bright red, dk. red slip polished vertically 123, 127

No. 700. May 5-7. Pot. 107h. Lt. br., cream, polished, patina 119, 125

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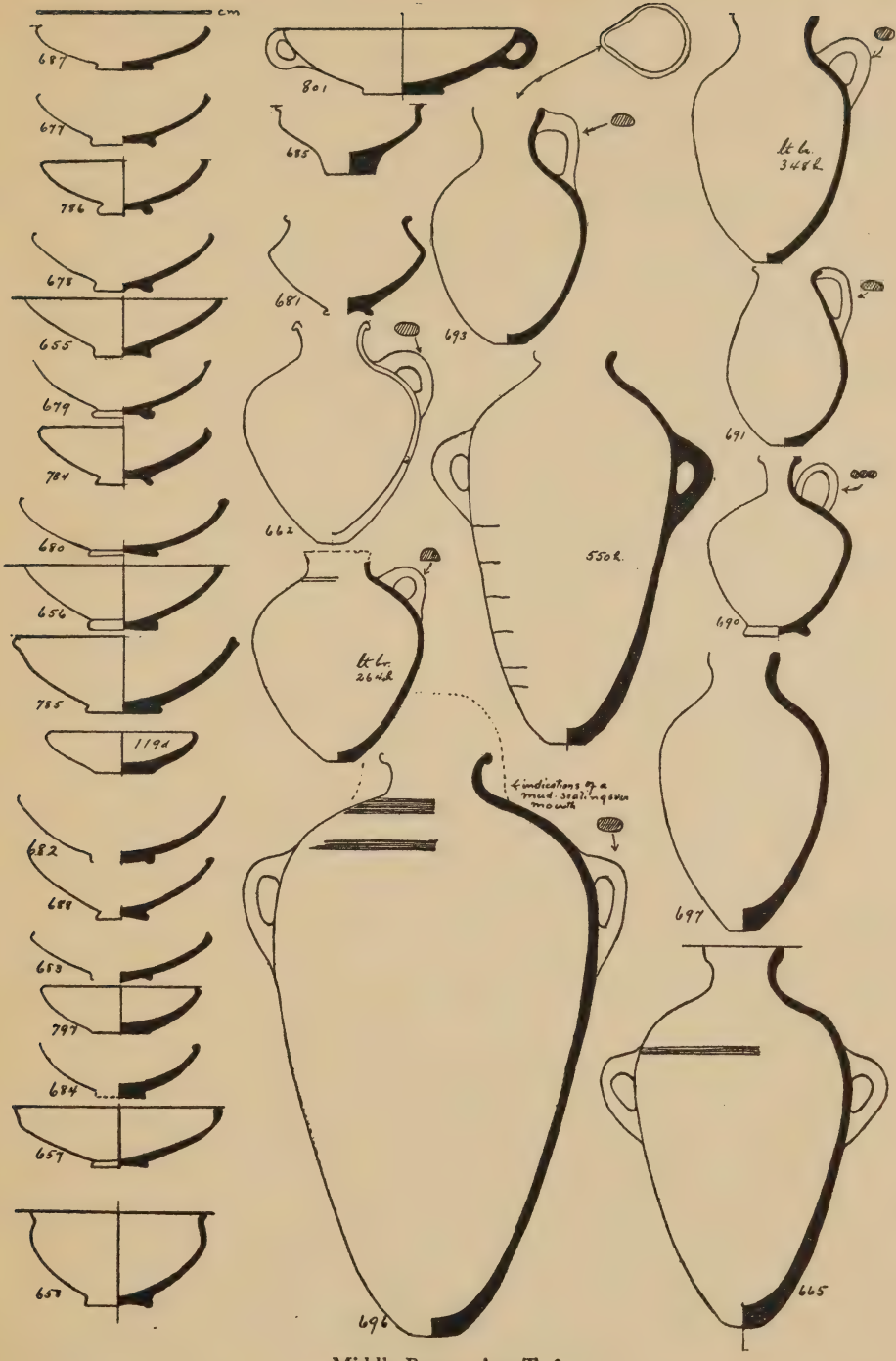
No. 702. May 5-7. Bowl. 182d. Br., cream surf., red slip on upper part outside polished over red only, concave ring base 119, 129



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No. 706. May 13. Scarab. 17x11. Steatite, white glaze 89
No. 707. May 13. Scarab. 20x13. Serpentine, bronze swivel. 89
No. 708. May 13. Scarab. 16x12. Black stone 89
No. 709. May 13. Bodkin. 56 l. Bronze .....
No. 710. May 13. Earring. 26d. Silver .....
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No. 720. May 7. Scarab. Steatite, these two found in No. 801. 89
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No. 722. May 7. Beads. 3 faience .....
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No. 744. May 5-7. Blade End. 25w. Bronze, 3 rivets in place; heads hammered out on both sides handle .....
No. 745. May 5-7. Earring. 24w. Silver, crescent .....
No. 745a. May 5-7. Hair Pins. Bronze, frags .....
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No. 747. May 5-7. Spear Head. 190 l. Bronze .....
No. 748. May 5-7. Spear Head. 211 l. Bronze .....
No. 749. May 5-7. Beads. 3 in all; amethyst ball, carnelian ball, white glazed faience amulet .....
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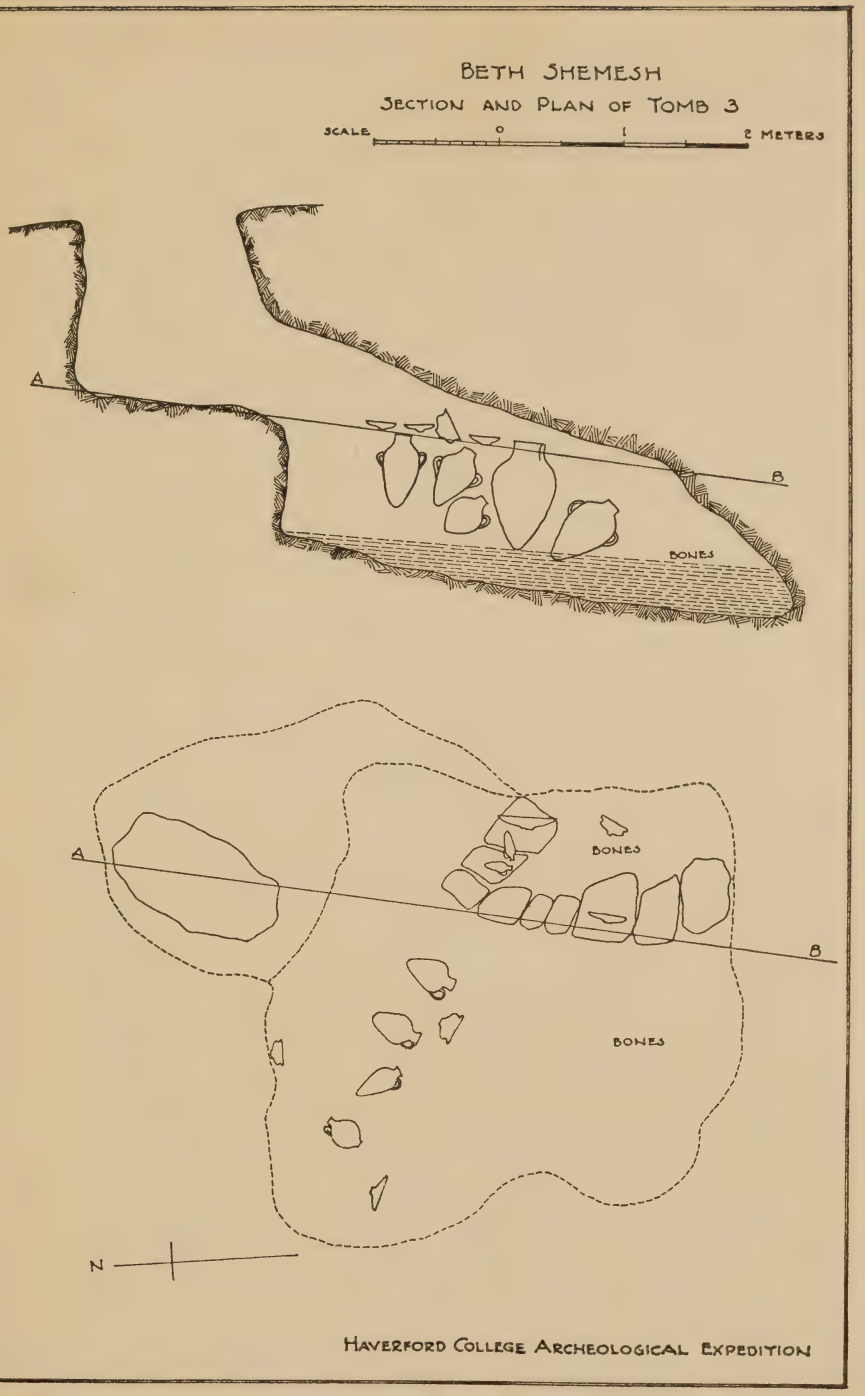
No. 751. May 5-7. Scarab. 15x11. Crystal, uninscribed, part of bronze swivel 89
No. 752. May 5-7. Scarab. 18x13. Steatite, white glaze ... 89
No. 753. May 5-7. Scarab. 15x10. Steatite, white glaze ... 89


BETH SHEMESH
SECTION AND PLAN OF TOMB 3
SCALE 0 1 2 METERS
A
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BONES
BONES
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HAVERFORD COLLEGE ARCHEOLOGICAL EXPEDITION

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No. 754. May 5-7. Scarab. 18 + x 14. Steatite, traces blue glaze bronze swivel in place..... 89

No. 755. May 5-7. Scarab. 12x8. Paste, bluish gr. glaze, female (goddess?) with a fish on either side..... 89

No. 756. May 5-7. Scarab. 18x13. Steatite, white glaze. In Ring. 26d. Bronze ring complete, corroded. (See title page) (For all other scarabs in T. 3, see page 89).....

No. 757. May 5-7. Scarab. 17x12. Steatite, traces greenish blue glaze..... 89

No. 766. May 5-7. Jug. 215h. Very lt. br., very dk. gr. core..... 121, 127

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No. 768. May 5-7. Dipper Jug. 210h. Lt. br., cream slip... 125

No. 769. May 5-7. Dipper Jug. 206h. Reddish br.....

No. 770. May 5-7. Juglet. 75h. Br., black surf. divided into 2 parts by a pair of horizontally incised lines about shoulder and a single one above base. Oblique lines of combed pricked dots in the 2 parts..... 119, 127

No. 771. May 5-7. Dipper Jug. 238h. Lt. br., similar to 768-9 but higher shoulder, broken.....

No. 772. May 5-7. Saucer. 136d. Drab, concave ring base, patina..... 129

No. 773. May 5-7. Bowl. 183d. Reddish br., traces of red painted inner rim, flat foot, surf. much eroded, encrusted, patina..... 129

No. 774. May 5-7. Dipper Jug. 224h. Buff, heavy ware, traces cream slip overlaid with red one..... 125

No. 775. May 5-7. Dipper Jug. 198h. Lt. br., red slip burnished vertically and horizontally and much worn..... 123, 125

No. 776. May 5-7. Dipper Jug. 190h.....

No. 777. May 5-7. Dipper Jug. 197h. Lt. br., red slip burnished.....

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No. 778. May 5-7. Jug. 148h. Dk. br., black surf. very much worn, slip burnished..... 119, 127

No. 779. May 5-7. Bowl. 150d. Lt. br..... 129

No. 780. May 5-7. Bowl. 113d. Reddish br., scored in concentric scratchings about lower body and on flat base, patina..... 119, 125

No. 781. May 5-7. Bowl. 122d. Very lt. br., similar to 779 flat base, patina.....

No. 782. May 5-7. Dipper Jug. 268h. Lt. br., similar to 775.

No. 783. May 5-7. Dipper Jug. 211h. Lt. br., similar to 775. These 2 were in 696..... 125

No. 784. May 5-7. Bowl. 248d. Drab, wet sm..... 131

No. 785. May 5-7. Bowl. 327d. Reddish br., traces red dec. patina..... 131

No. 786. May 5-7. Bowl. 240d. Reddish br..... 131

No. 787. May 5-7. Bowl. 106d. Cream br., gr. core, wet sm. 125

No. 788. May 5-7. Bowl. 66d. Lt. br., gr. core, wet sm., scored on flat base, chipped..... 123, 125

No. 789. May 5-7. Saucer. 124d. Lt. br., red slip inside, concave ring base, patina..... 123, 125

No. 790. May 5-7. Lamp. 121d. Lt. br., surface eroded 123, 129

No. 791. May 5-7. Juglet. 59 + h. Saffron drab, cream slip. 127

No. 792. May 5-7. Juglet. 87h. Very lt. br., sandy, slip sm. much worn, traces of saffron (patina?) concave strap handle..... 119, 127

No. 793. May 5-7. Juglet. 65 + h. Lt. br., red surf., burnished. 127

No. 794. May 5-7. Juglet. 109h. Very lt. br., pink to red surf. burnished, mended, fluted handle..... 121

No. 795. May 5-7. Juglet. 120h. Dk. gr., black surf. Was it a very dk. red slip? eroded, fluted handle.....

No. 796. May 5-7. Bowl. 181d. Lt. br., pinkish surf., ring base, saffron encrustation..... 129

No. 797. May 5-7. Bowl. 229d. Very lt. br., wet sm., combed on outside, cross scratched on base..... 131

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No. 798. May 5-7. Bowl. 141d. Dk. br., fine combing about lower body, purplish stain within, much patina.. 119, 129

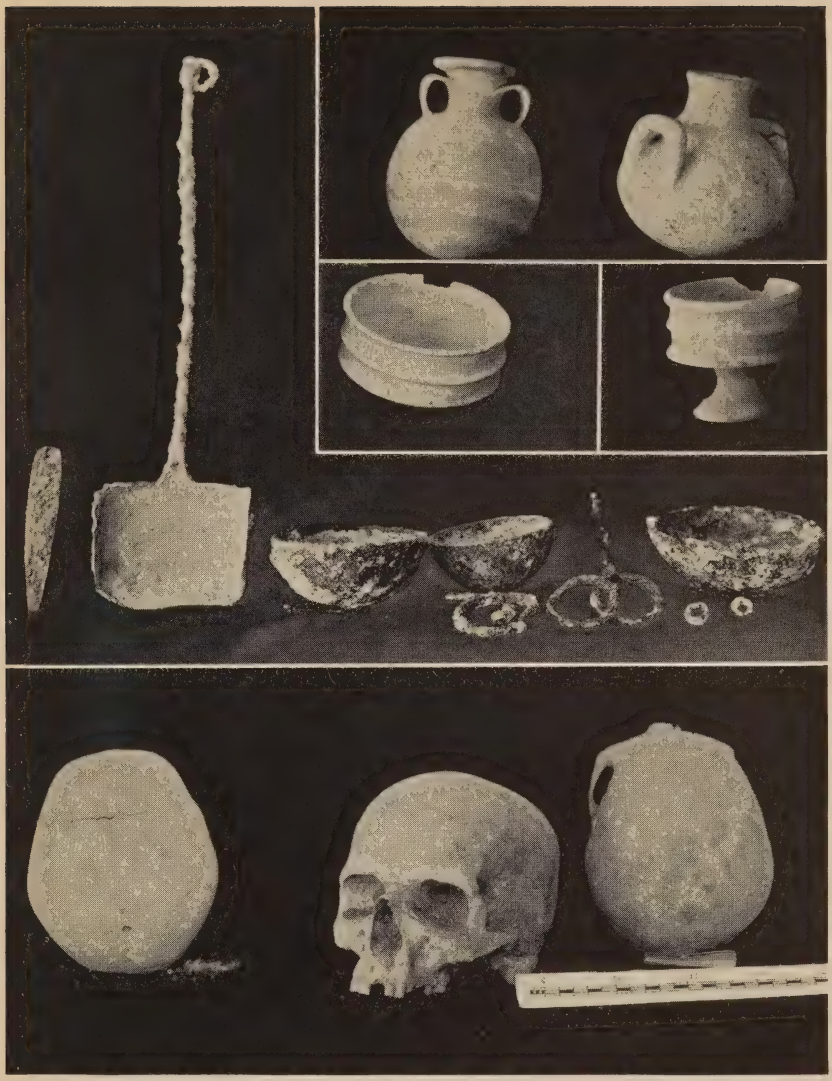
No. 799. May 5-7. Bowl. 158d. Pinkish br., wet sm. to drab cream, scored about shoulder, patina..... 119, 129

No. 800. May 5-7. Bowl. 175d. Lt. br., red slip, worn, encrusted, salts..... 119, 129

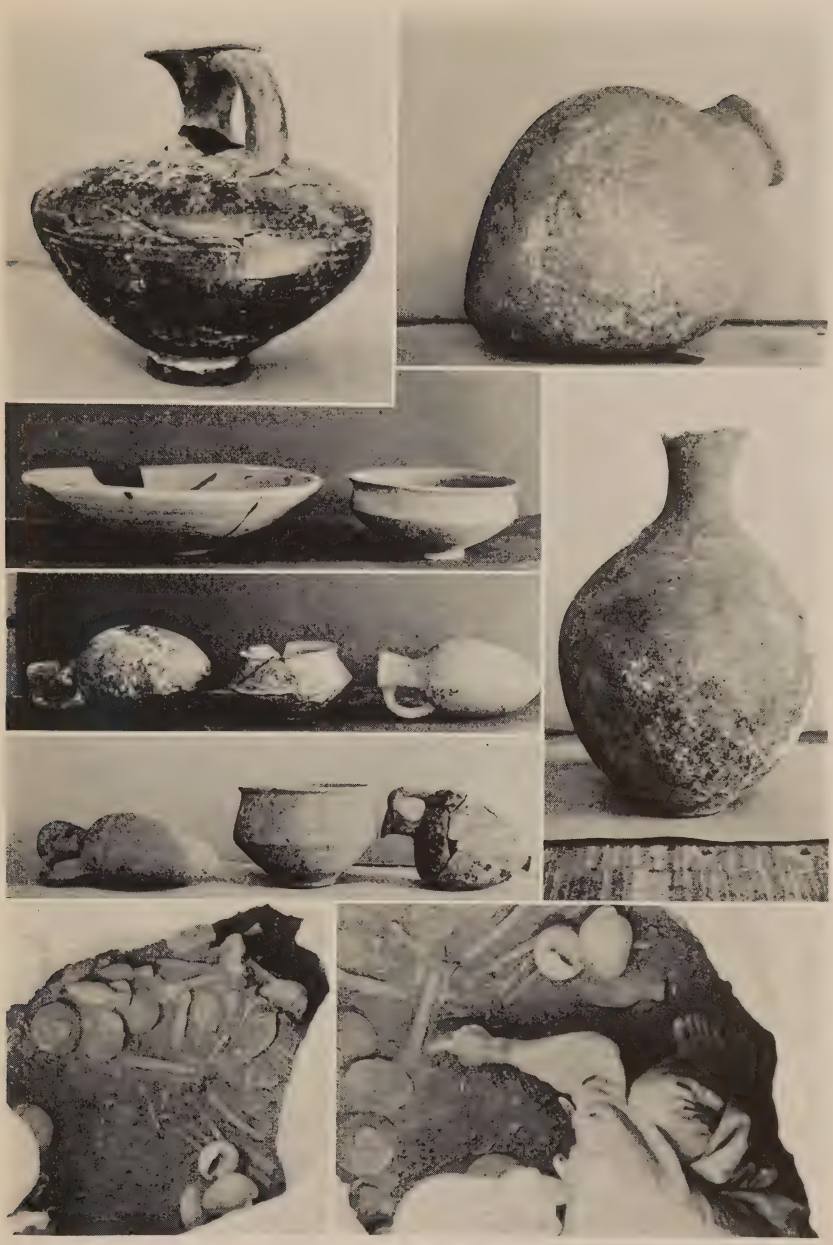
No. 801. May 5-7. Open Dish, 2 handled. 341d. Reddish brown, sandy, crossed within by 2 broad red bands ca. 40 wide, red rim, patina, contained debris and 2 scarabs (719-720)..... 123, 131

No. 802. May 5-7. Lamp. 140d. Lt. br., scored base, concentric twists, nozzle smoked..... 123, 129

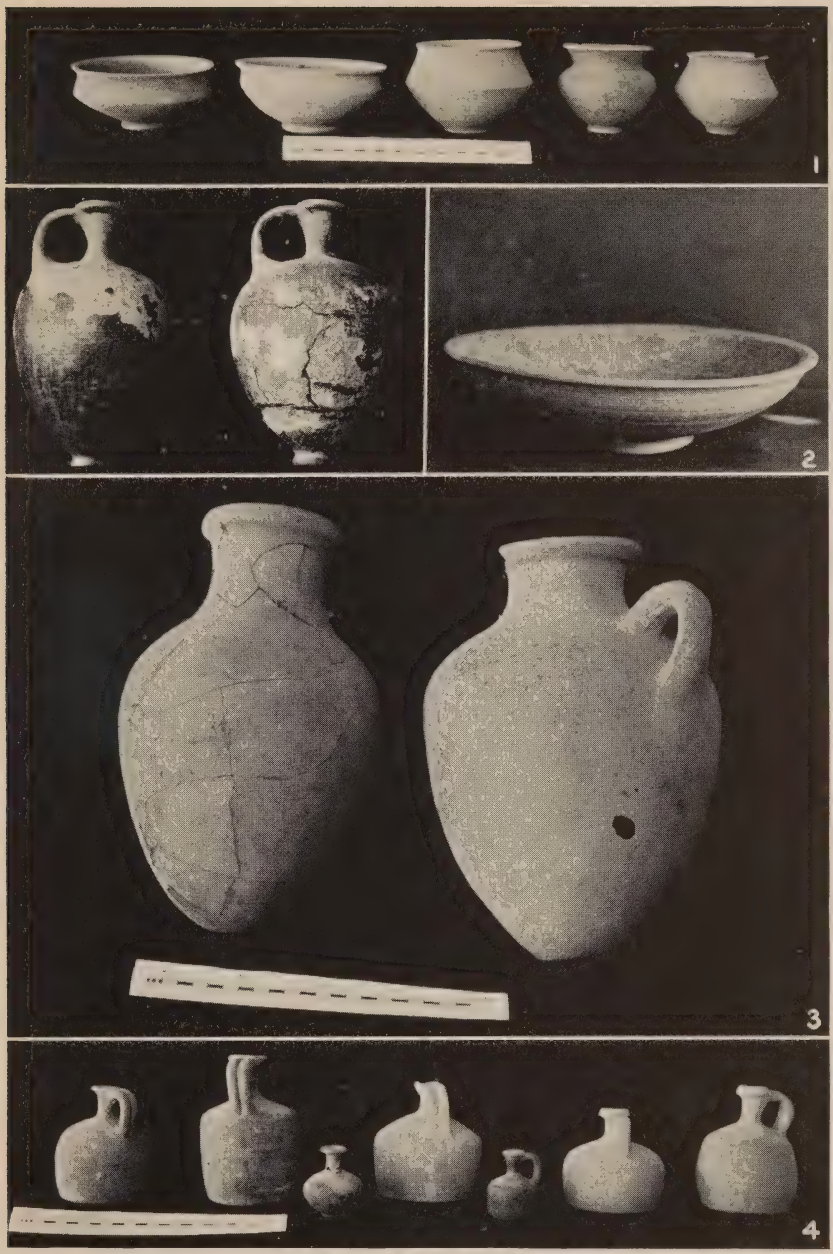
No. 803. May 5-7. Vase. 150h. Alabaster..... 125



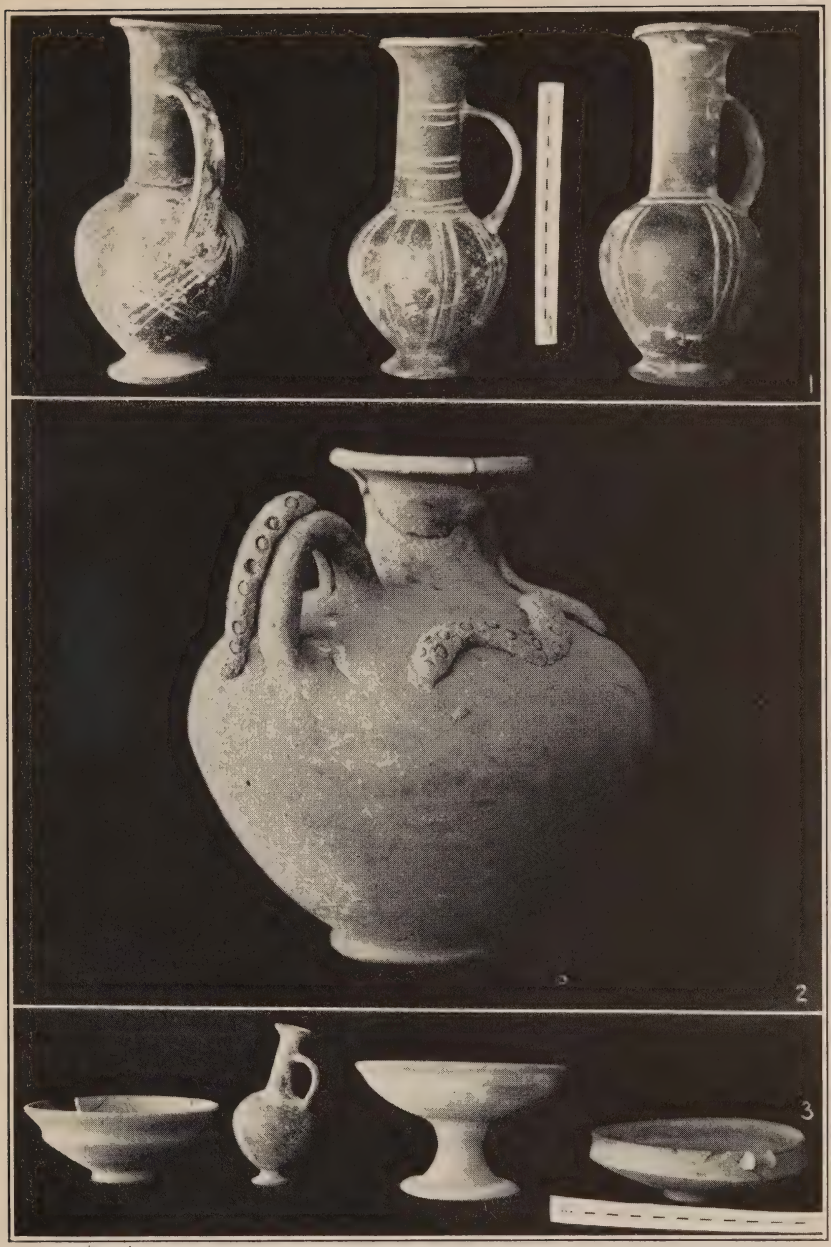
Alabasters and bronzes from the burials. Copper shovel from the city debris.
Skulls from the second cemetery T. 2.



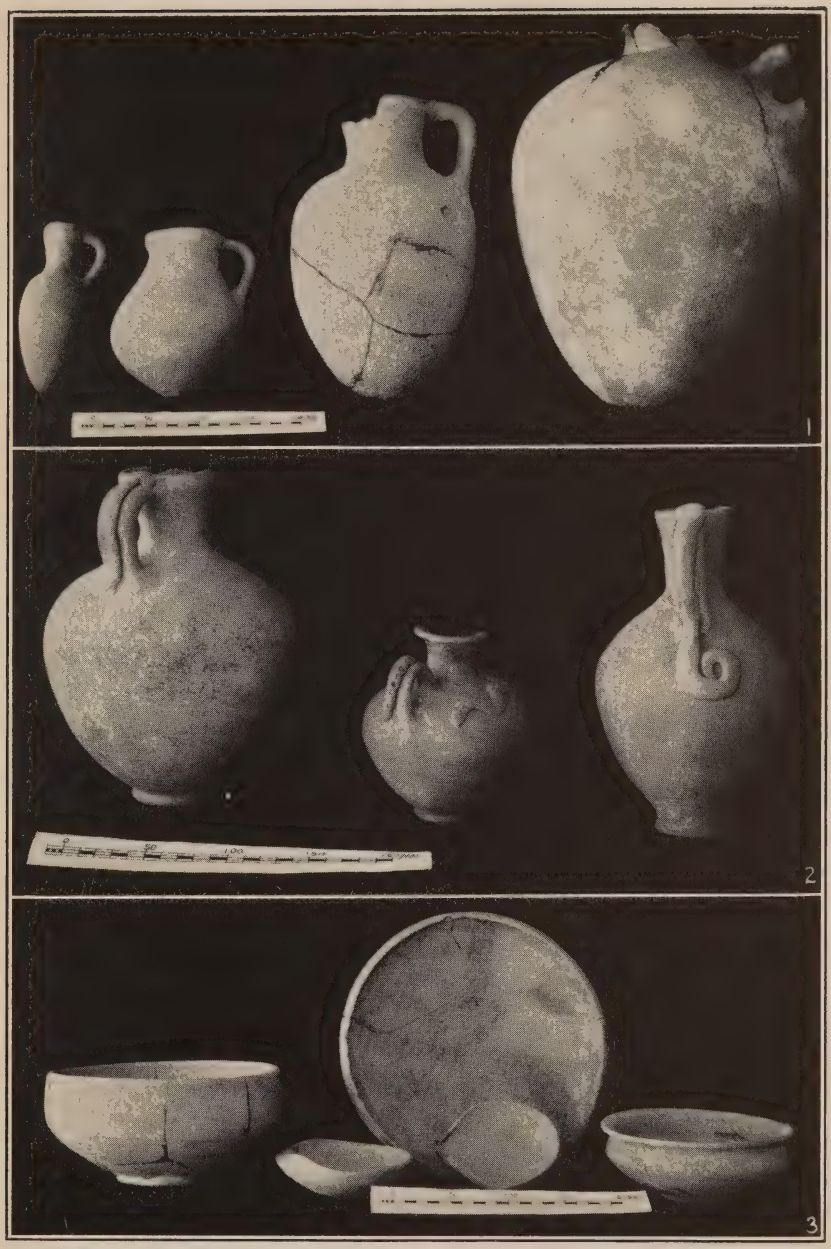
Jug, upper left corner, is from T. 2 a. All other vessels from T. 2 e.
Lower: Two views of contents of T. 2 d.



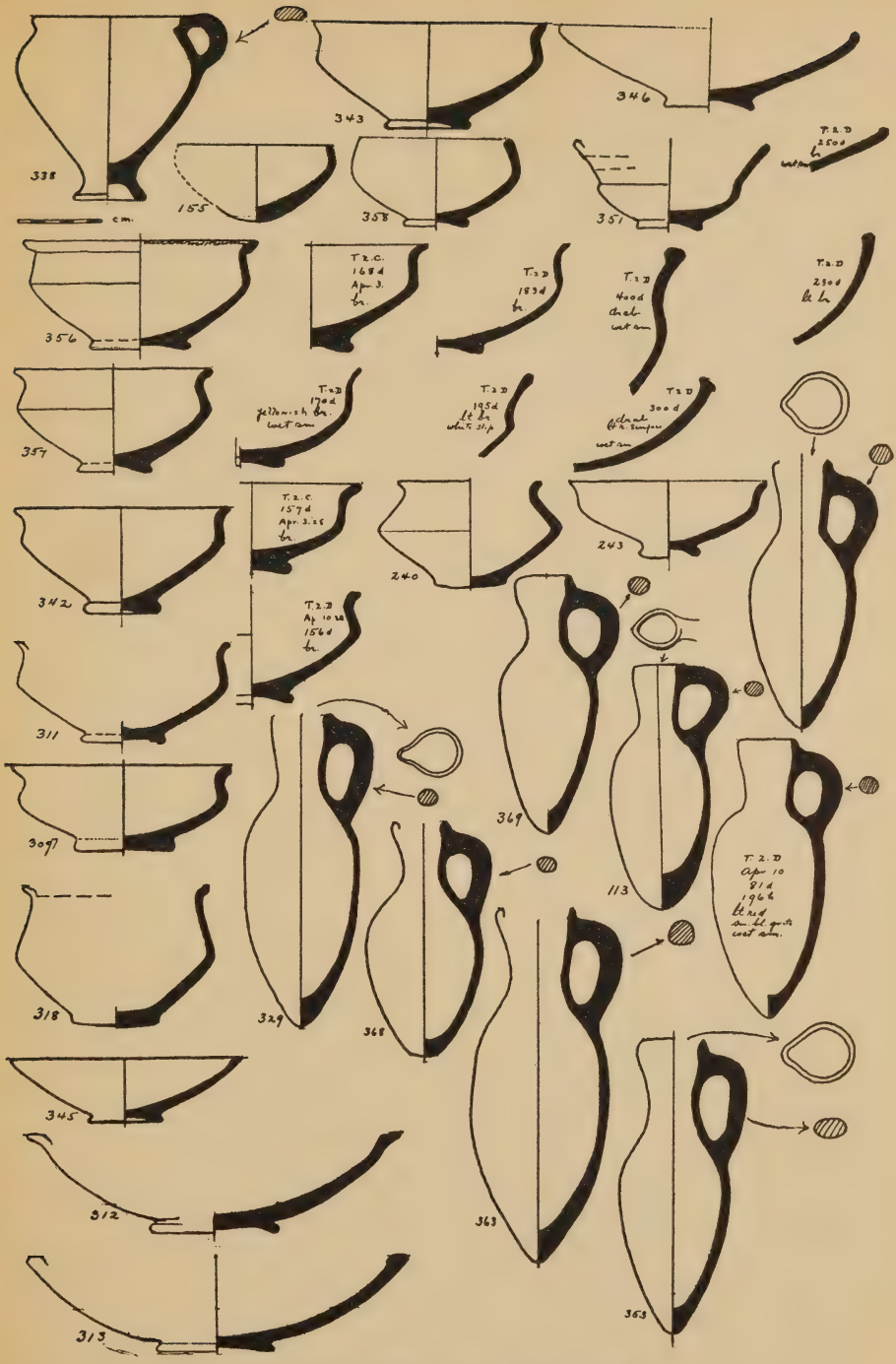
Pottery from the second cemetery, Beth Shemesh, 1928.



Pottery from the second cemetery, Beth Shemesh, 1928.



Pottery from the second cemetery, Beth Shemesh, 1928.



The second cemetery, Beth Shemesh, 1928.

The contents of T. 2 are illustrated on pages 79, 89, and 137 to 145 for the photographic reproductions and on pages 147 to 157 for the drawings. For Late Bronze Age analogues see P. M. B. 3.

Objects in T. 2

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No. 49. Mar. 26. Jug. 117w. T.2.A. Lt. br., deep red slip, polished horizontally 139, 155

No. 59. Mar. 27-30. Hair Pin. T.2B. Bronze, fragment...

No. 60. Mar. 27-30. Beads. Many carnelian, 2 crystal, 1 amethyst 79

No. 61. Mar. 27-30. Cowries. Shell, many .....

No. 62. Mar. 27-30. Beads. Gray material 157

No. 63. Mar. 27-30. Beads. Faience 157

No. 64. Mar. 27-30. Paint. Red paint, frags .....

No. 65. Mar. 27-30. Beads. 2 carnelian beads with wire... 79

No. 66. Mar. 28. Handle (ledge). Lt. red, from jar, small scallops 157

No. 70. Mar. 29. Pot. 112d. Drab, white grits, greenish cream slip 141, 149

No. 78. Mar. 31. Jug. 304h. Lt. br., white grits, lt. red surf. 141, 155

No. 79. Mar. 31. Jug. 100d. Yellowish buff, surf. finely polished 141, 155

No. 80. Mar. 31. Pot. 92d. Buff, orange vermilion surf... 149

No. 81. Mar. 31. Pot. 142d., 98h. Buff, wet sm. buff surface. 141, 149

No. 82. Mar. 31. Bowl. 148d., 61h. Buff, wet sm. buff surface 149

No. 83. Mar. 31. Spear Head. 156 + h. Bronze 153

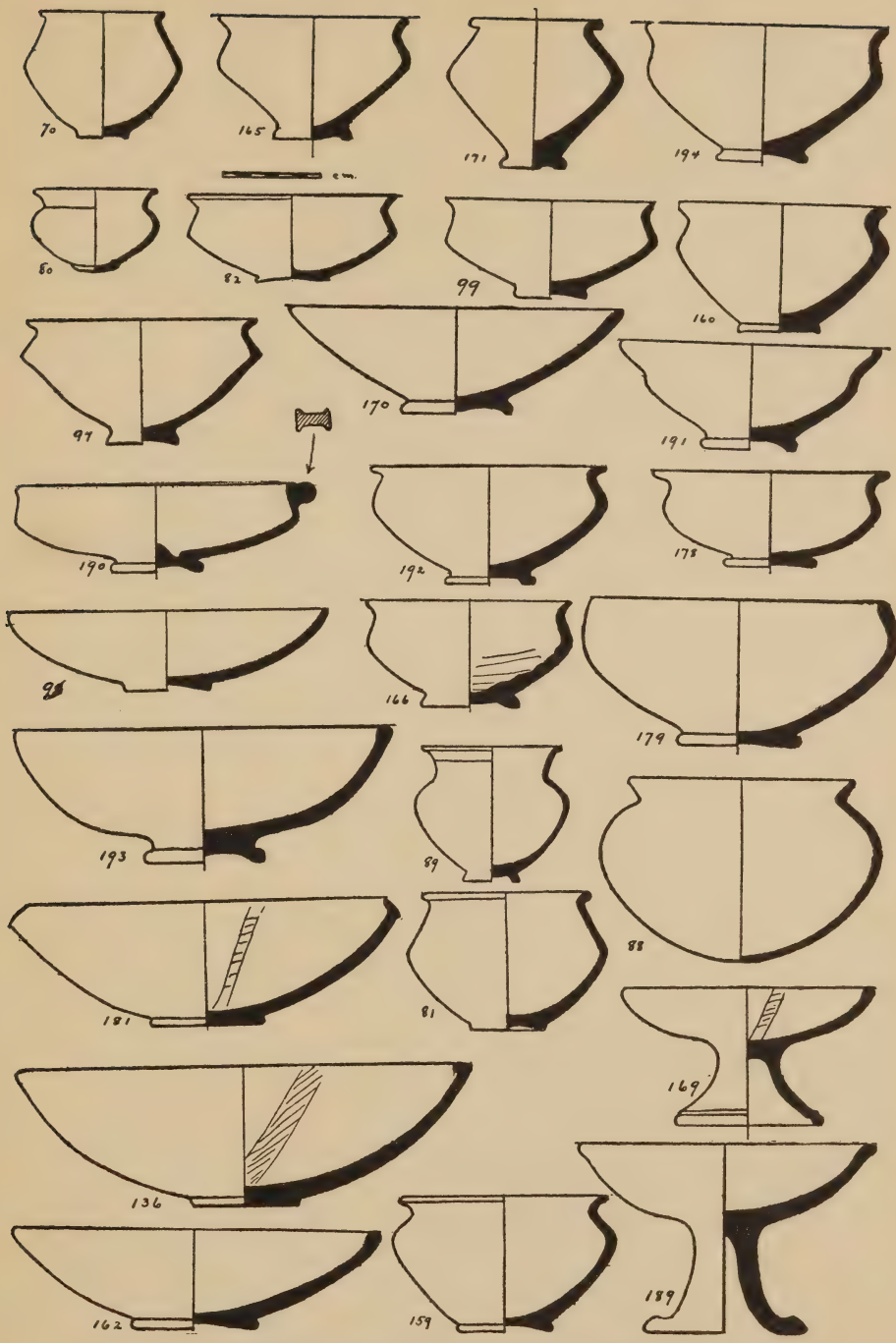
No. 84. Mar. 31. Jug. 123h. Buff, wet sm 141, 157

No. 85. Mar. 31. Dipper Jug. 238d. Buff or lt. red, slip sm. 157

No. 86. Mar. 31. Dipper Jug. 175 + h. Similar to 85, wet sm.

No. 87. Mar. 31. Dipper Jug. 225h. Lt. red, wet sm., well finished, lt. red surface 145

No. 88. Mar. 31. Pot. 202d., 130h. Br., wet sm., black and white grits 149



The second cemetery, Beth Shemesh, 1928.

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No. 89. Mar. 31. Pot. 110d. Yellowish buff, polished horizontally but vertically on neck, red bands (?) on neck 141, 149

No. 90. Mar. 31. Jug. 112d. Gray 141, 157

No. 91. Mar. 31. Jug. 161h. Gray slip sm., black surf., polished vertically 157

No. 92. Mar. 31. Jug 141, 157

No. 93. Mar. 31. Juglet. 67h., 57d. Gray, bl., polished slip. 141

No. 94. Mar. 31. Juglet. 65h. Gray, bl. polished slip... 141, 155

No. 95. Mar. 31. Jug. 154h. Yellowish buff, red slip polished vertically 157

No. 96. Mar. 31. Jug. 121h. Buff, lt. red surf., polished vertically 141, 157

No. 97. Mar. 31. Bowl. 165d. Lt. red, wet sm., gr. core, lt. red surf 141, 149

No. 98. Mar. 31. Bowl. 230d. Lt. br., wet sm., white grits, reddish surf 149

No. 99. Mar. 31. Bowl. 153d. Buff, well smoothed, brownish surf 141, 149

No. 100. Mar. 31. Flake. 44 l. Flint .....

No. 101. Mar. 31. Ring. 73d. Iron, 5 frags., cowrie shell attached .....

No. 102. Mar. 31. Razor? Bronze, frag 153

No. 103. Mar. 31. Rings. 19d. Bronze 4 (2 stuck) 137

No. 104. Mar. 31. Needles. Bronze 157

No. 105. Mar. 31. Scarab. 16x12. Carnelian, Ptah, Sekhmet, Nefertem 89

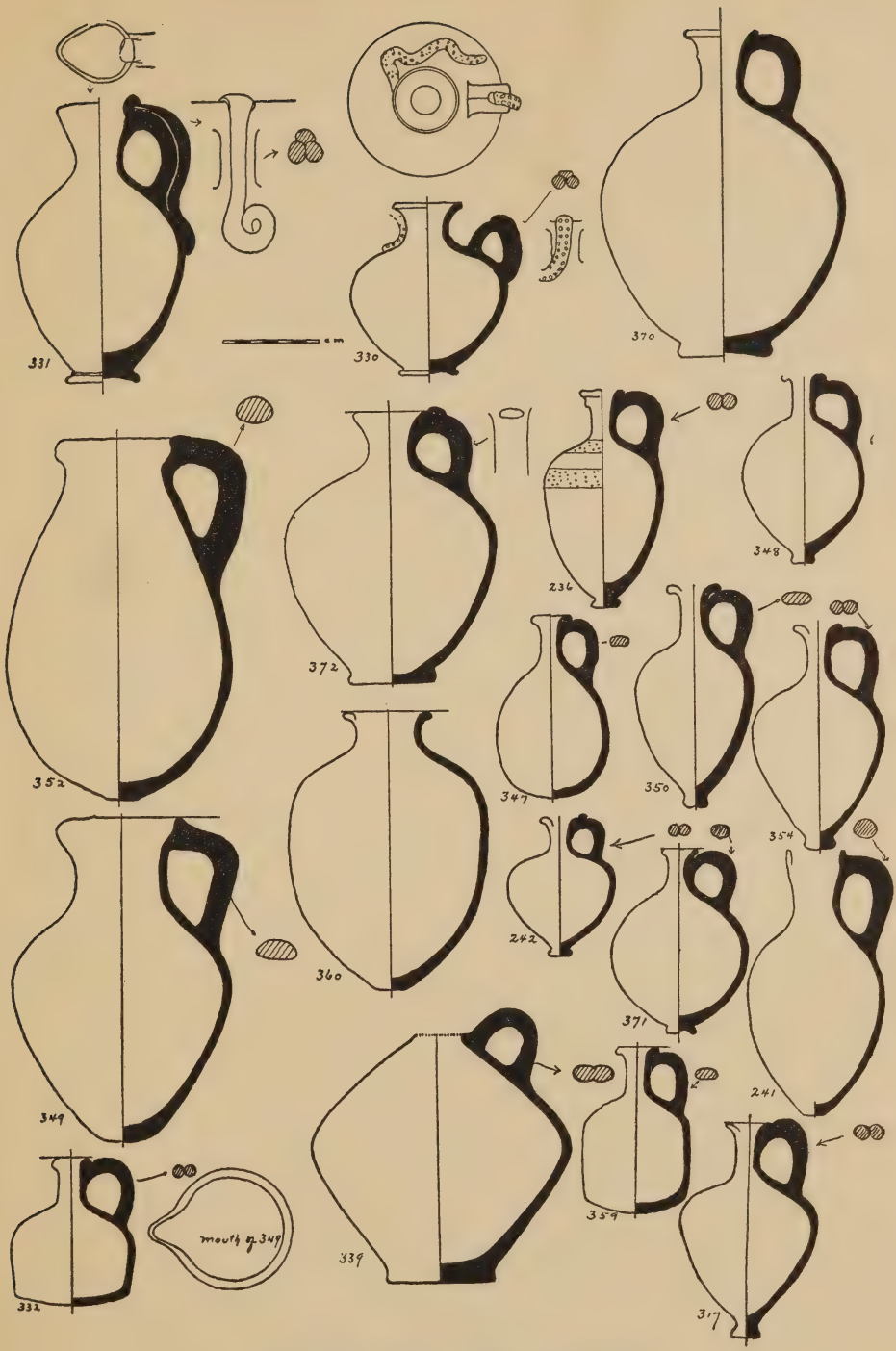
No. 106. Mar. 31. Bead. 15d. Crystal, flattened .....

No. 110. Apr. 3. Scraper. 39 l. T.2D. Flint .....

No. 113. Apr. 3. Jug Dipper. 70d., 172h. Lt. br., wet sm., surf. pitted, black and white large grits 147

No. 115. Apr. 3. Scarab. 18x13. T.2B. Amethyst .....

No. 116. Apr. 3. Scarab. 14x10. T.2B. Steatite, white glaze yellow filler .....



The second cemetery, Beth Shemesh, 1928.

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No. 117. Apr. 3. Scarab. 16x11. T.2B. Steatite, white glaze yellow filler.....

No. 118. Apr. 3. Scarab. 15x10. T.2B. Steatite, white glaze, worn.....

No. 119. Apr. 3. Scarab. 14x9. Dark stone.....

No. 120. Apr. 3. Scarab. 13x9. Paste (glass) yellow surface.

No. 121. Apr. 3. Ring. 21d. T.2B. Bronze.....

No. 122. Apr. 3. Rings. 12d. 4, two linked.....

No. 123. Apr. 3. Beads. Faience, crystal, carnelian 9, one barrel, one cylinder.....

No. 134. Mar. 26. Jar. 325h. T.2. Lt. red, wet sm.... 141, 155

No. 135. Mar. 26. Jug (dipper). 155h. Red..... 155

No. 136. Mar. 26. Bowl. 330d. Red wet sm., red crossed bands inside..... 149

No. 137. Apr. 10. Scarab. 19x13. T.2C. Steatite, fine white glaze.....

No. 138. Apr. 10. Scarab. 17x12. T.2C. Steatite, white glaze

No. 139. Apr. 10. Scarab. 13x9. T.2C. Steatite, pale blue faded to white.....

No. 140. Apr. 10. Scarab. 14x10. Amethyst.....

No. 141. Apr. 10. Scarab. 13x10. T.2D. Steatite, white glaze..... 89

No. 142. Apr. 10. Scarab. 18x12. Steatite, white glaze.... 89

No. 143. Apr. 10. Scarab. 16x10. Steatite, white glaze.... 89

No. 144. Apr. 10. Scarab. 16x11. Steatite, white glaze.... 89

No. 145. Apr. 10. Scarab. 13x9. Steatite, white glaze..... 89

No. 146. Apr. 10. Beads. Paste, carnelian, 3 long barrel gray, 5 long barrel white.....

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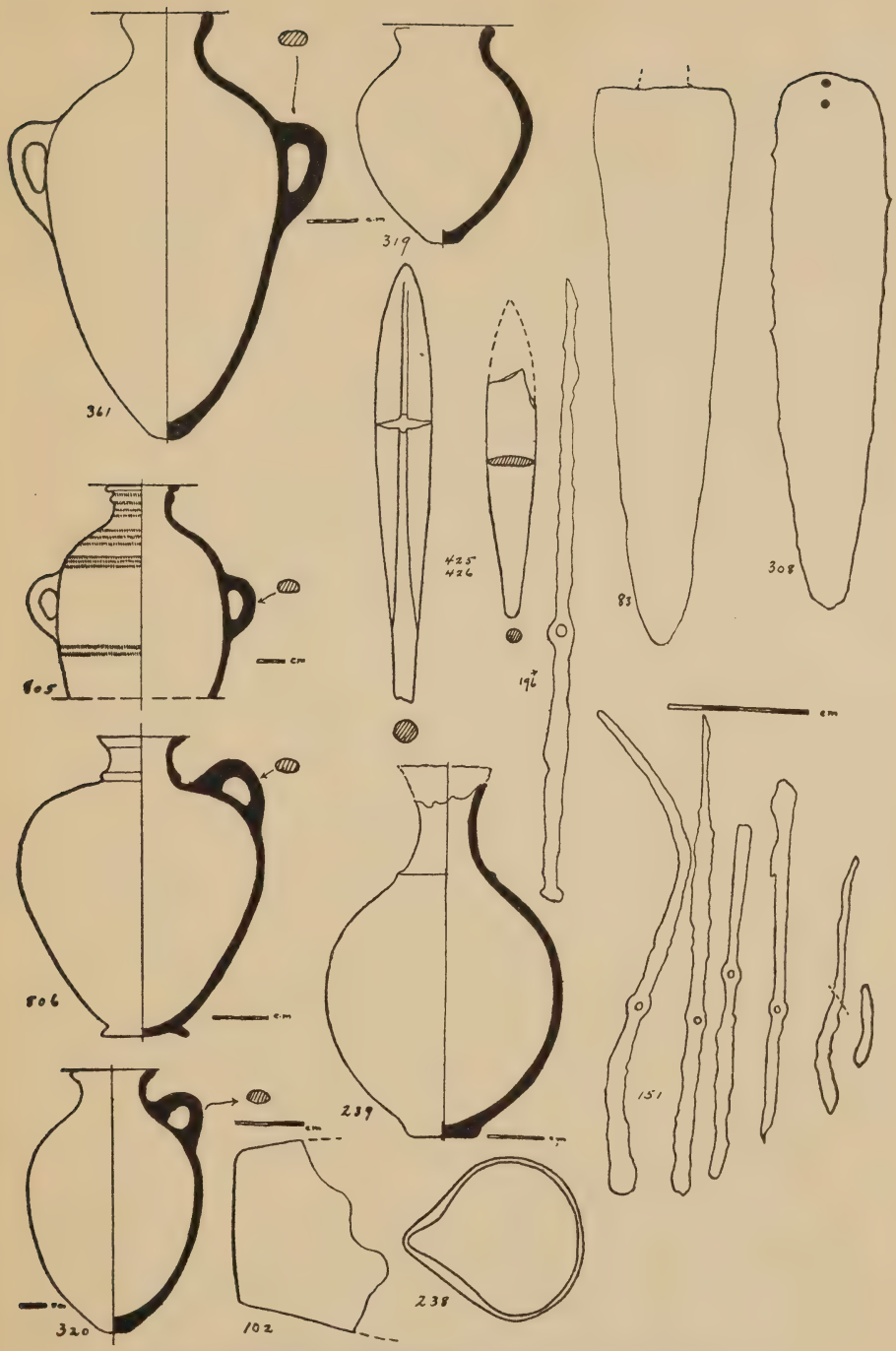

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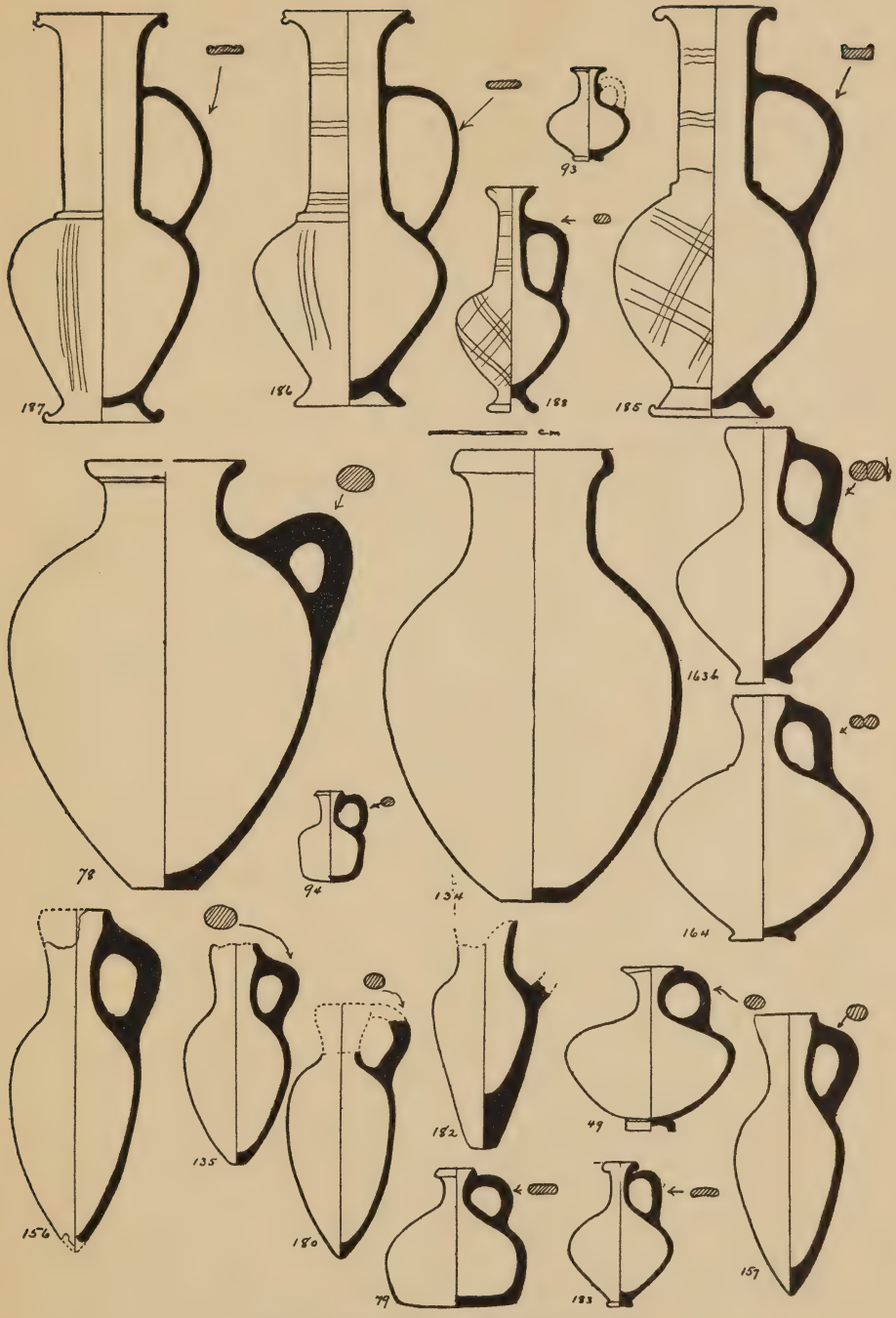

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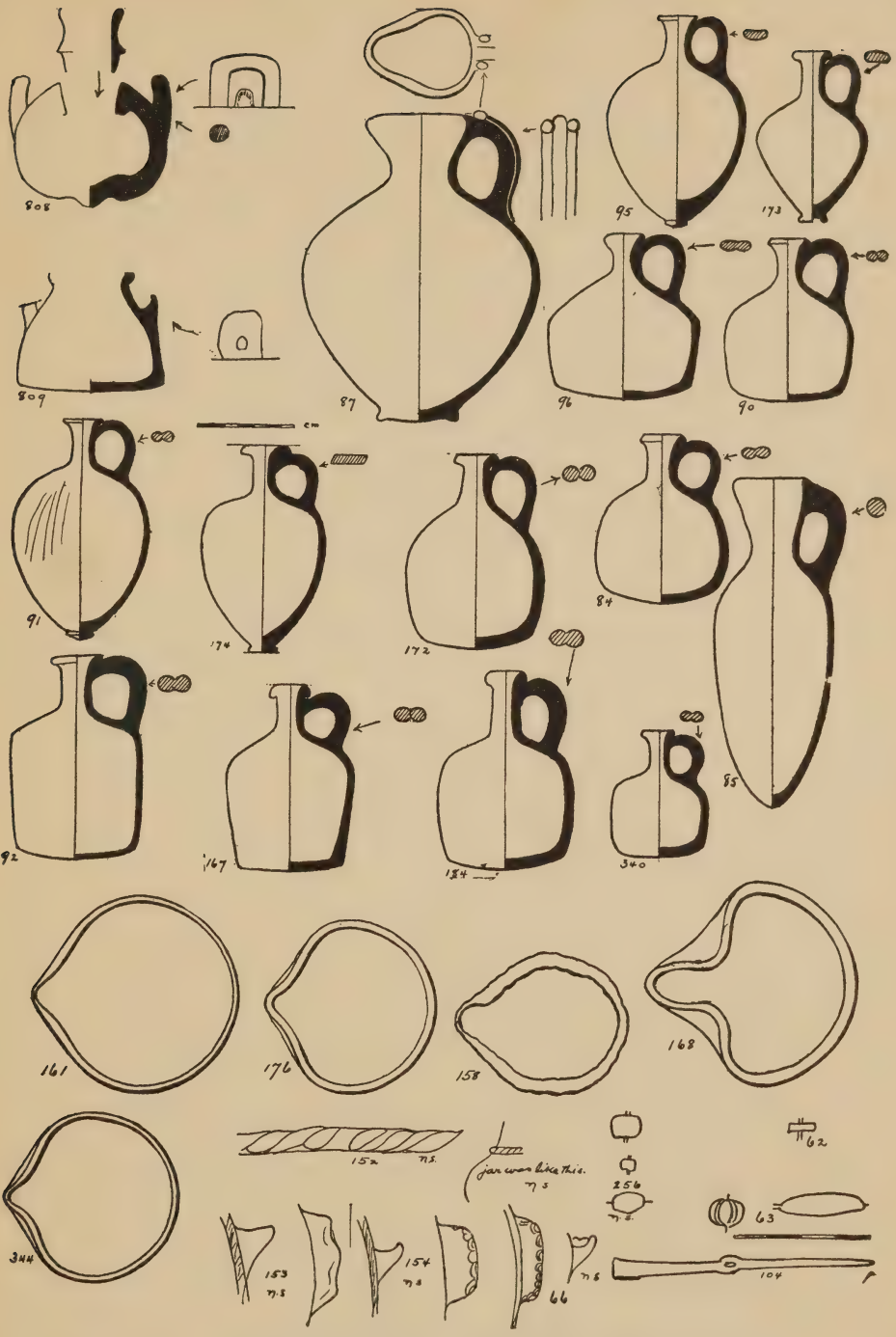

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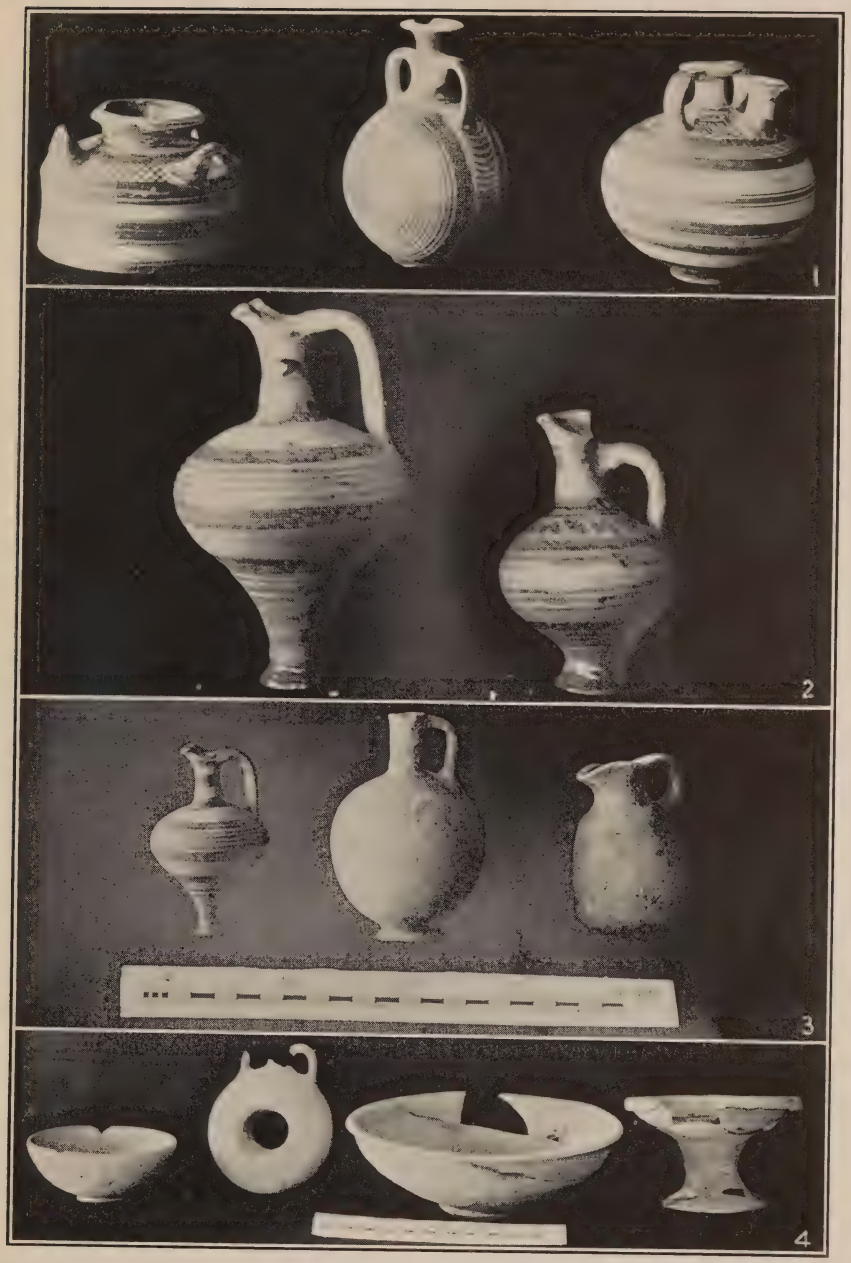
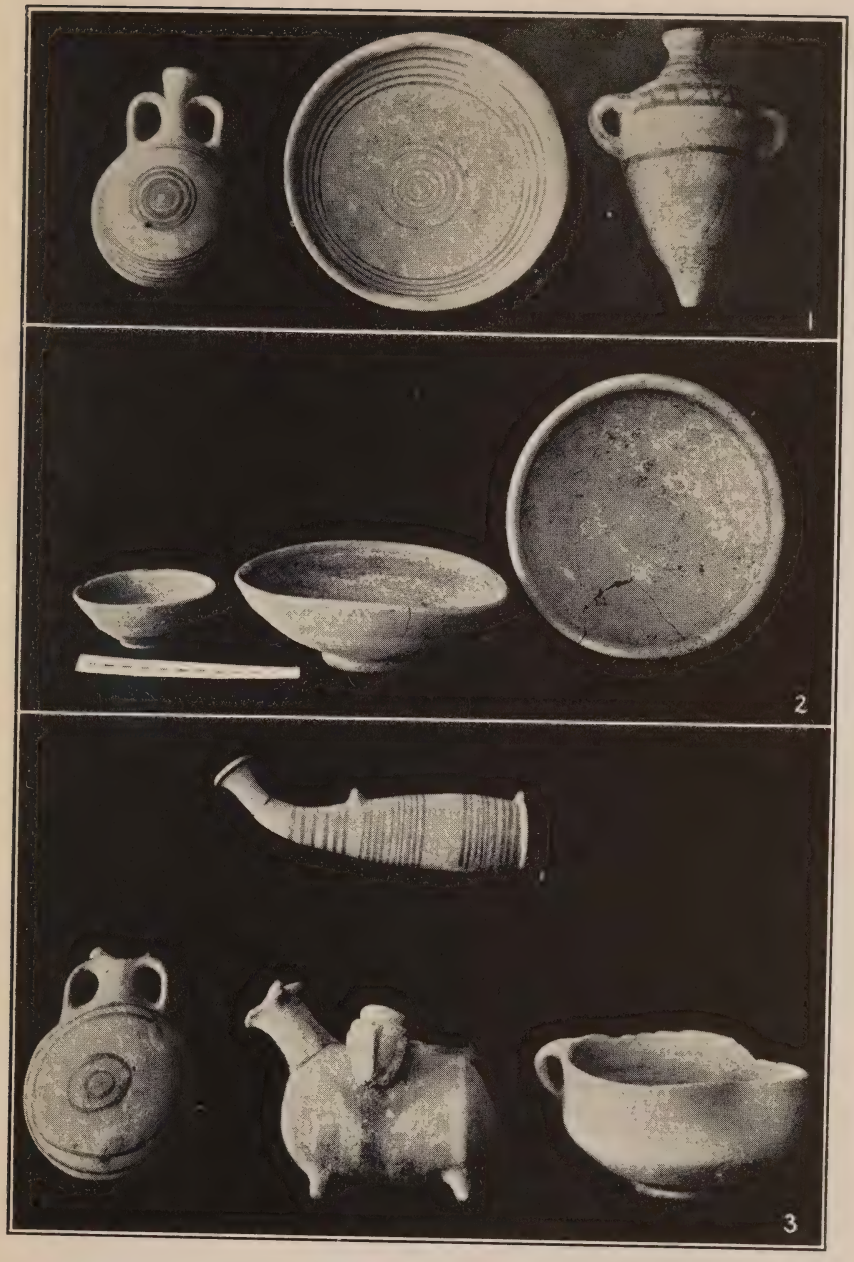
Lowest levels of deposits in T. 1.



Pottery from T. 1.

Pottery from T. 1.



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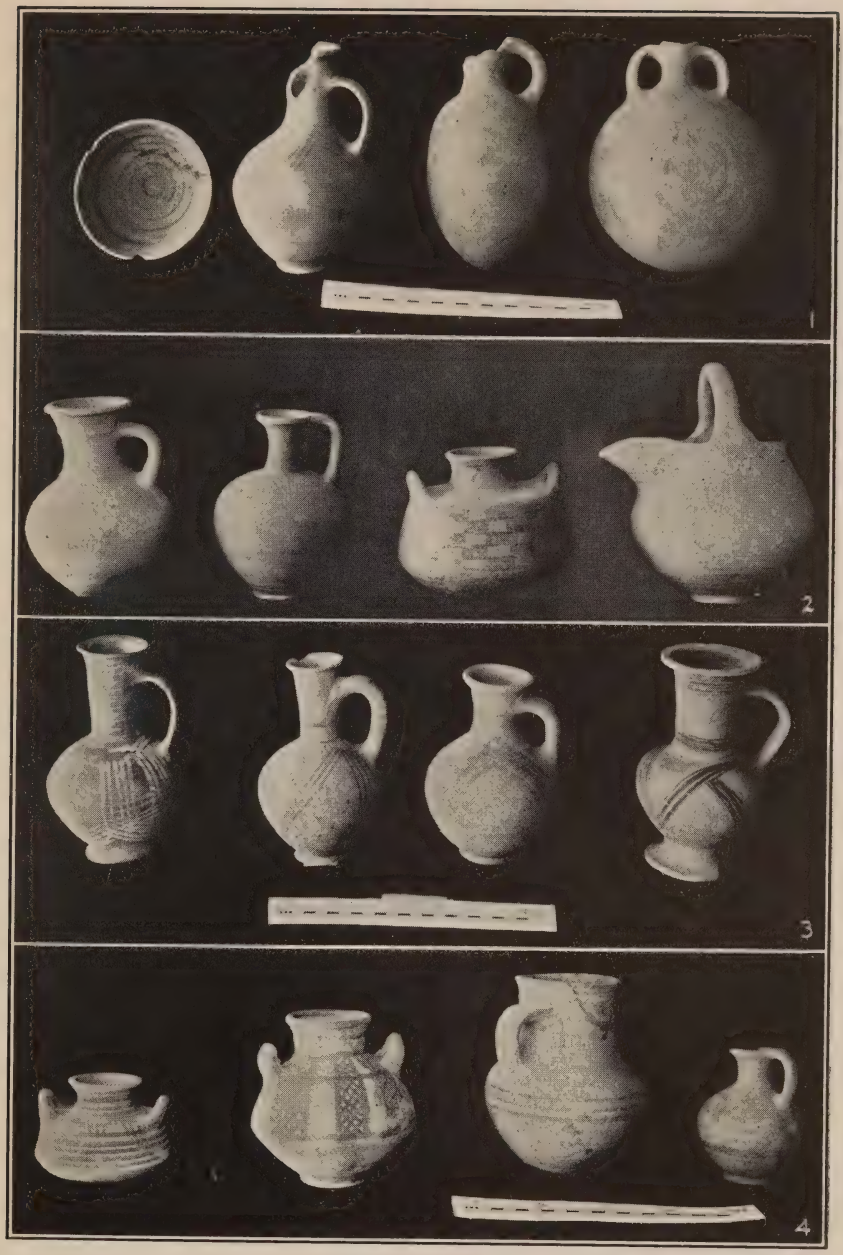

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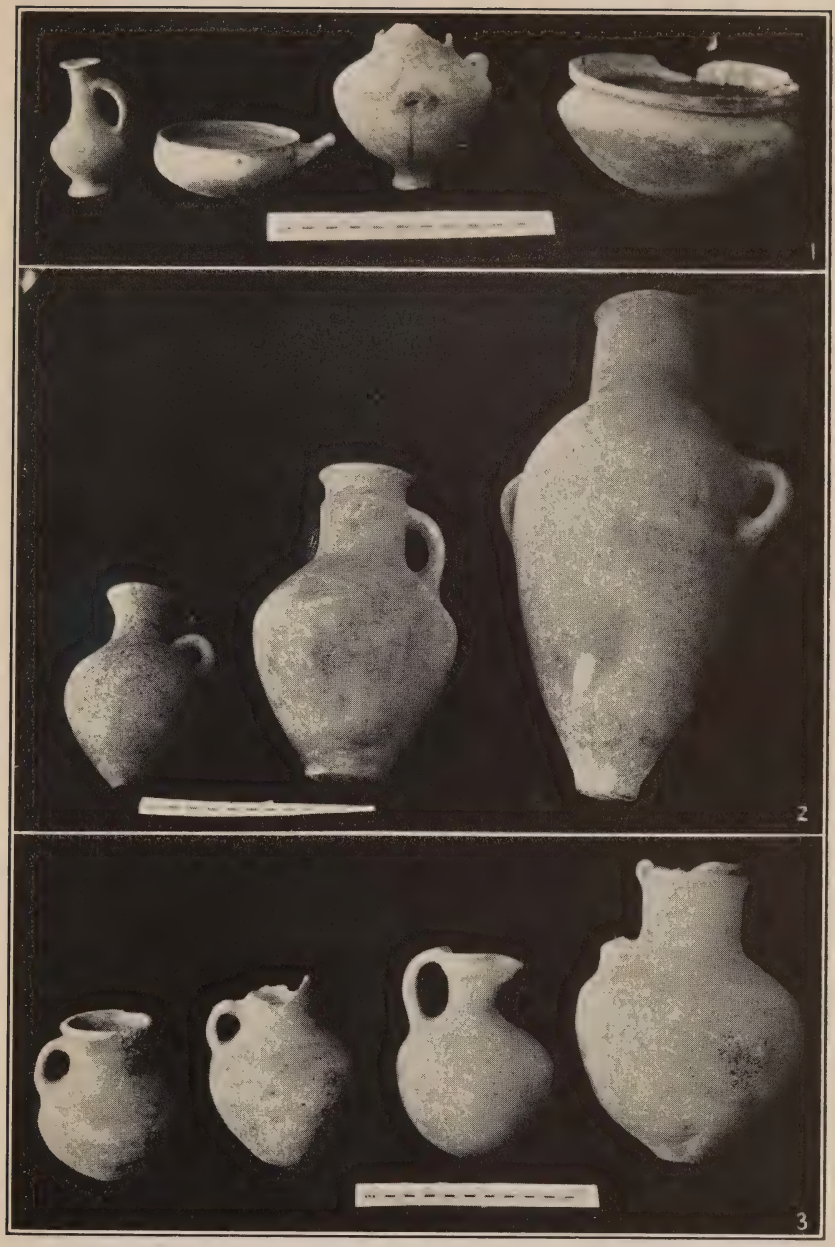

Pottery from T. 1.

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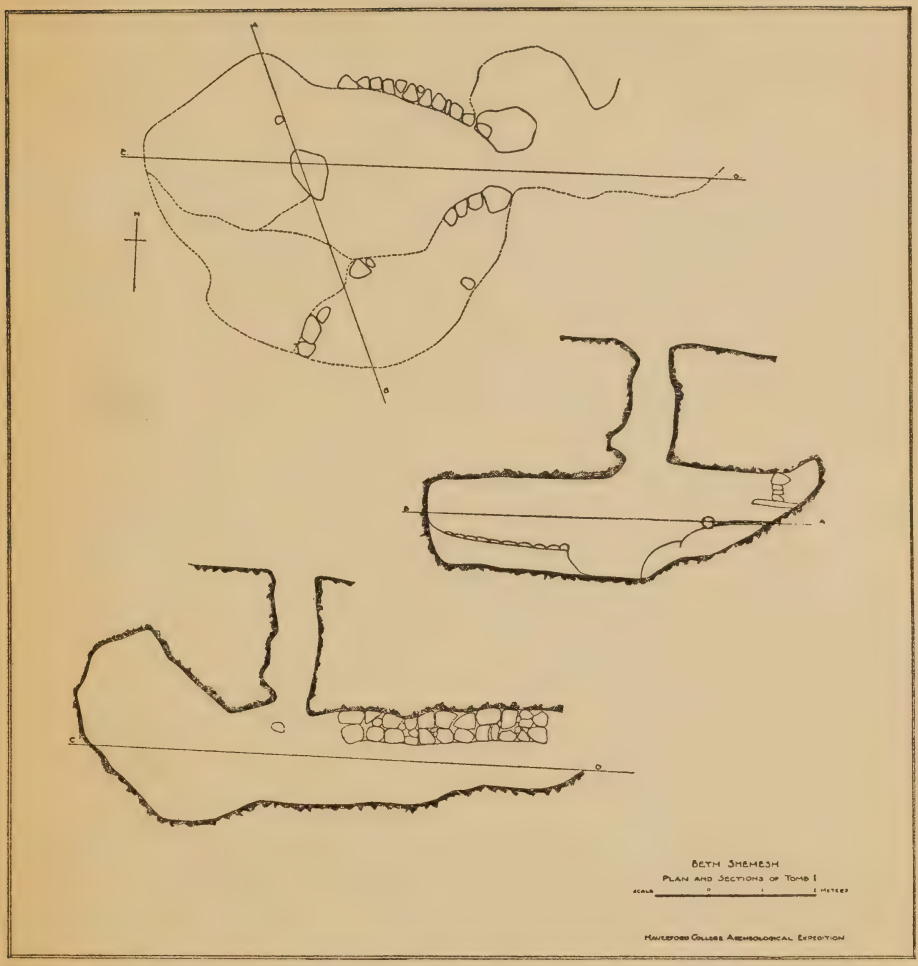
BETH SHEMESH
PLAN AND SECTIONS OF TOMB I
SCALE 0 1 2 METERS
MANSFORD COLLEGE ARCHAEOLOGICAL EXPEDITION

T. 1 materials are found illustrated on pages 161 to 177 (photographic) and on pages 179 to 195 (drawings) mostly of the Late Bronze Age and transition styles. For analogues see P.M.B. 3 and 4.

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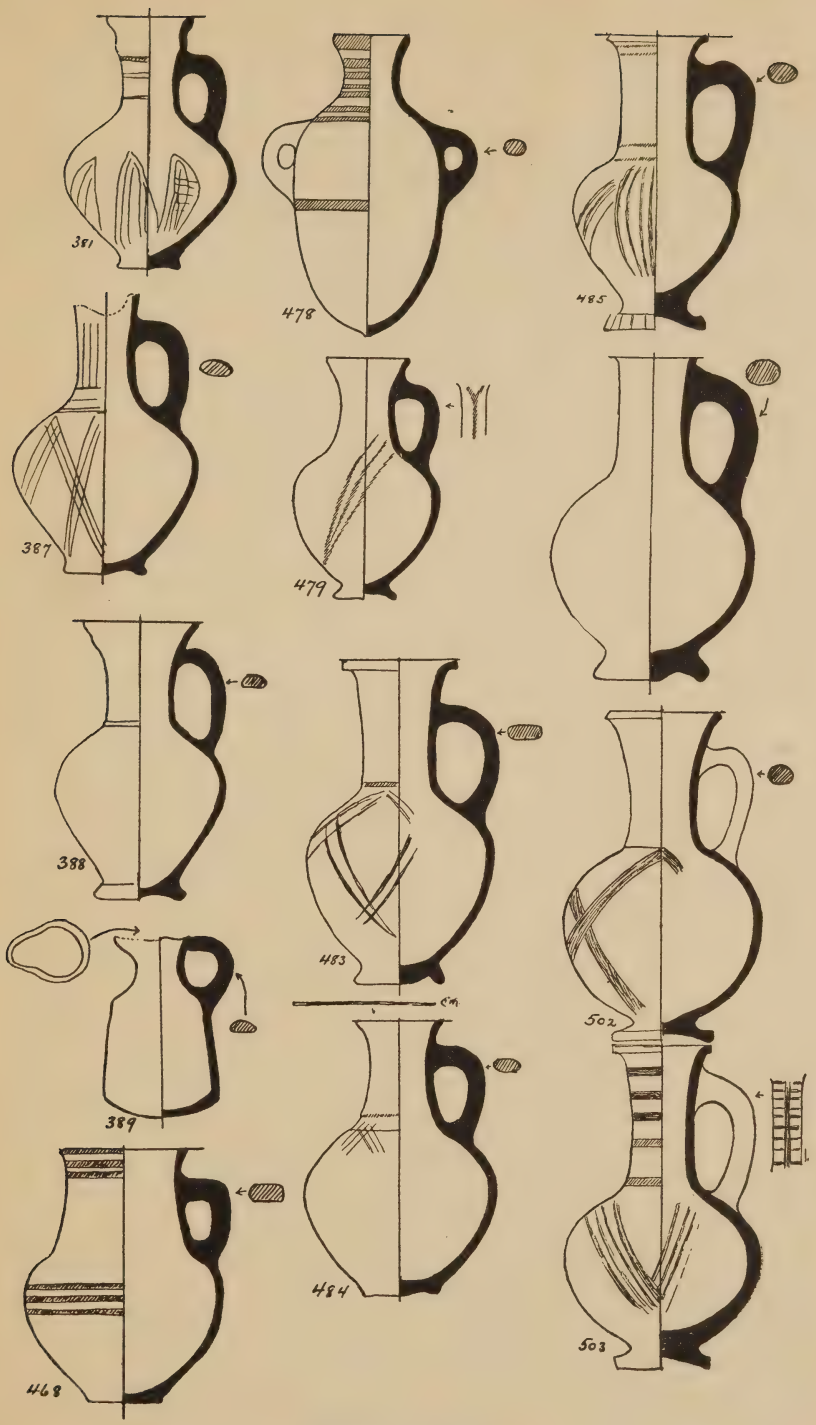

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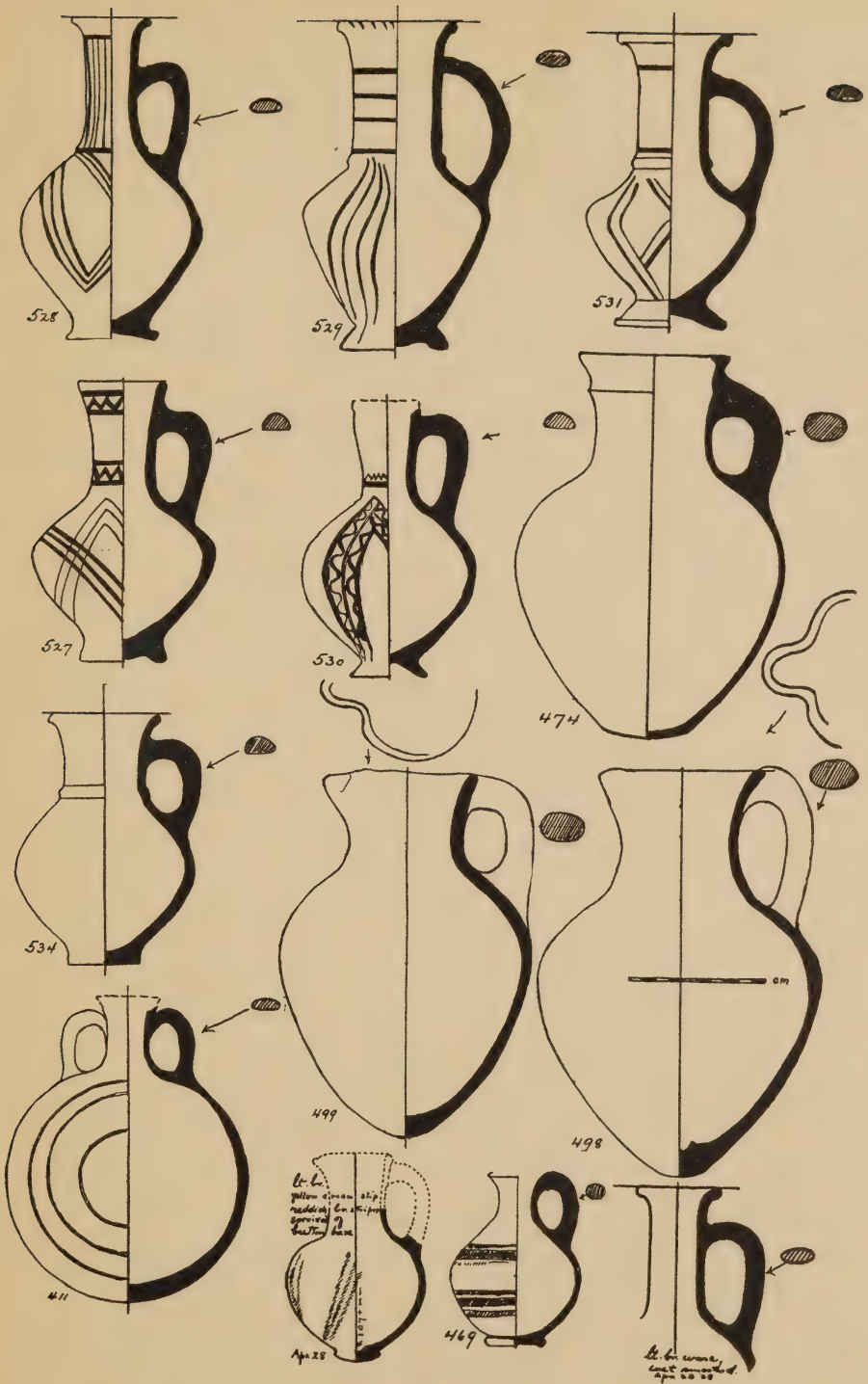

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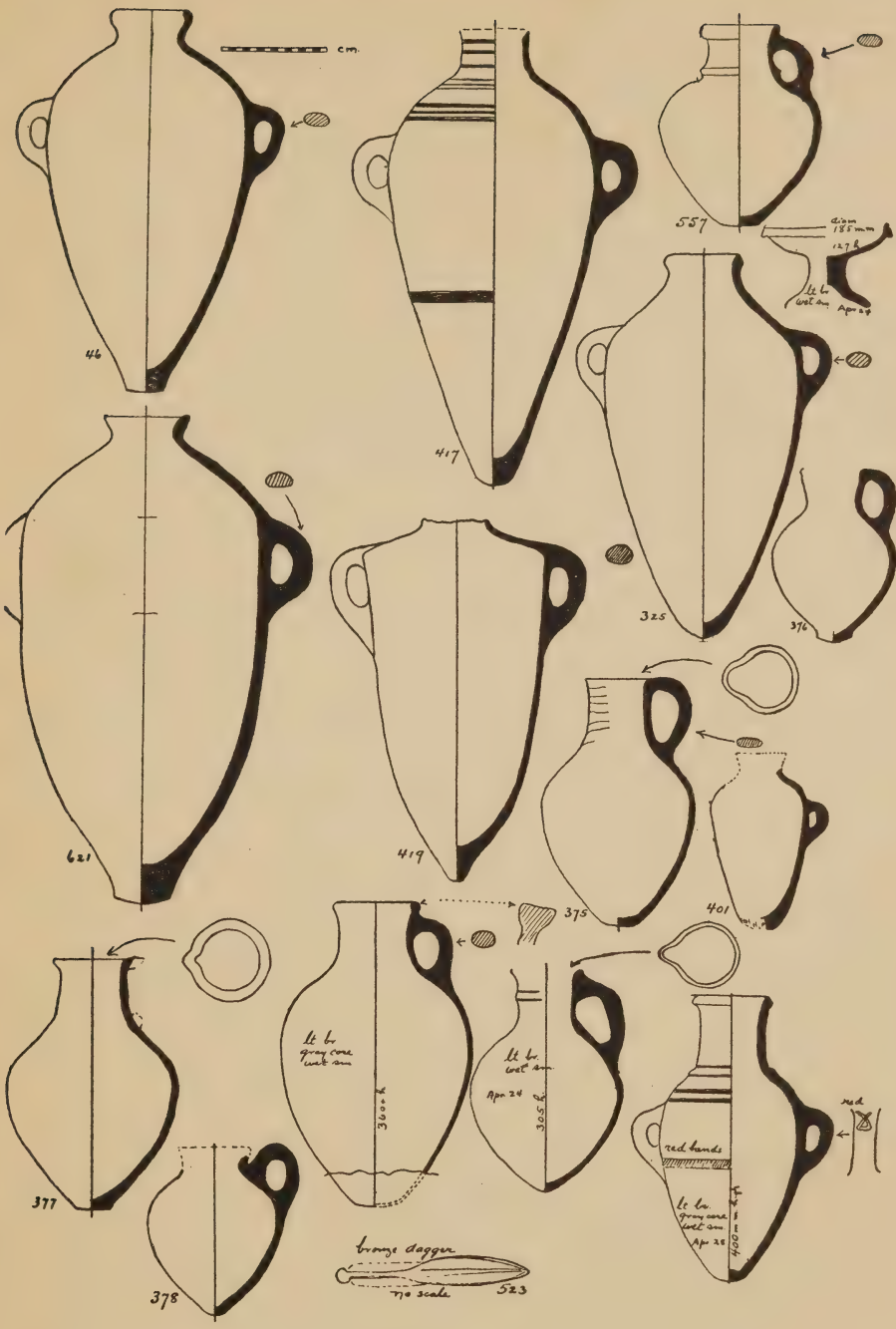

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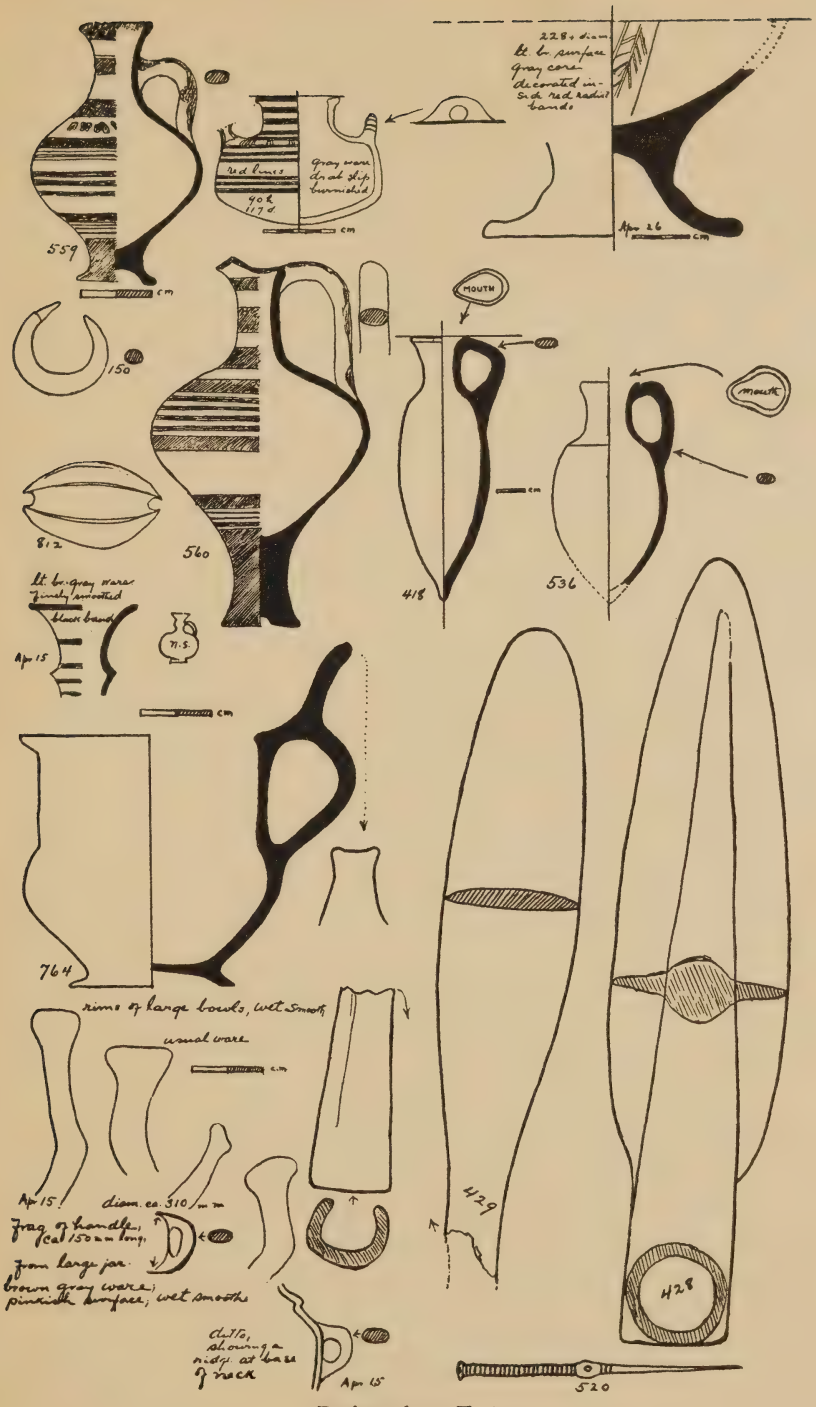

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No. 421. Apr. 30. Scarab. Steatite. 15x11. White glaze (from T.1E.)

No. 422. Apr. 30. Seal. Steatite. 16x12. White glaze (from T.1E.) similar to scarab outline but the obverse resembled a duck with head bent down over back...

No. 423. Apr. 30. Scarab. Amethyst. 19x14. Uninscribed (from T.1E.)

No. 424. Apr. 30. Beads, Carnelian. Barrel-shaped. Pendants. Br. paste, with flower petals inlaid with blue, white center in relief; poppy shaped pendant of pale blue faience 85

No. 428. Apr. 25. Spear Head. Bronze. 218 l. From T.1 tunnel 187

No. 429. Apr. 28. Spear Head. Bronze. 230 + l. Bent over butt containing part of wood of the shaft. From T.1. 187

No. 442. Apr. 27. Ring. Bronze. 24d. With bezel T.1 towards E.....

No. 443. Apr. 27. Beads. Faience and carnelian. T.1 towards E.....

No. 446. Apr. 15 to 24. Amulet. Faience. 34h. Pale blue, glazed, faded, found in T.1.....

No. 447. Apr. 23-25. Scarab. Steatite. 19x14. Discolored, traces of white glaze.....

No. 448. Apr. 23-25. Scarab. Steatite. 19x14. Glaze gone..

No. 449. Apr. 23-25. Scarab. Steatite. 17x13. White glaze.

No. 450. Apr. 23-25. Scarab. Steatite. 15x11. White glaze..

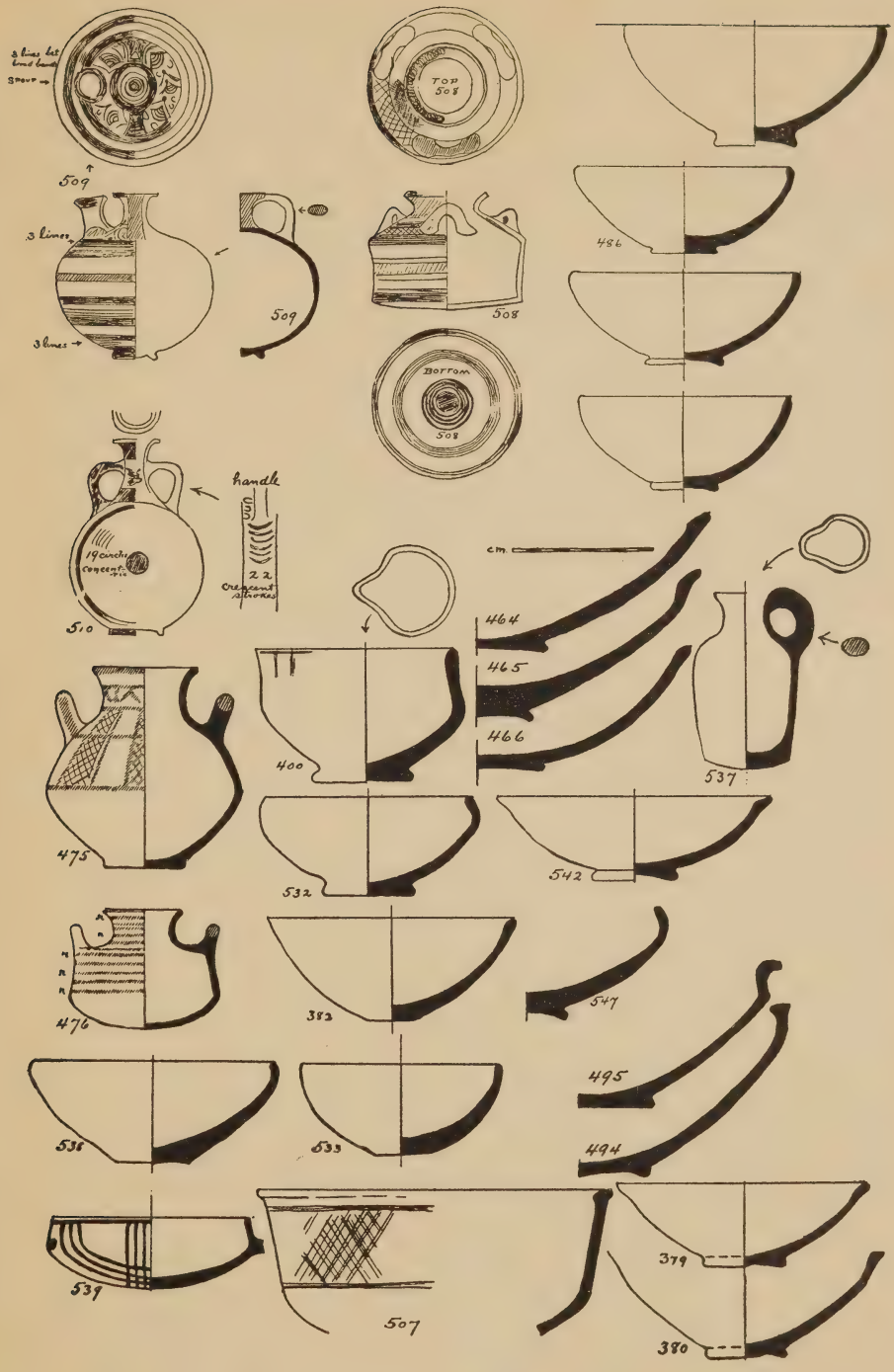
No. 451. Apr. 23-25. Scarab. Faience. 18x14. Pale blue, faded, made from a mold, figure of Ape?.....

No. 452. Apr. 23-25. Scarab. Carnelian. 18x14. Edges chipped, inscription of anubis, poorly cut.....

No. 453. Apr. 23-25. Scarab. Steatite. 15x12. White glaze.

No. 454. Apr. 23-25. Earring. Gold. 14w.....

No. 455. Apr. 23-25. Pins, etc. Bronze. 5 l. Also a gold band possibly attached formerly to one of the pins.....



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No. 456. Apr. 23-25. Earrings. Bronze. 17w., 23w. Crescent shapes.....

No. 457. Apr. 28. Scarab. Steatite. 22x16. T.1 new. Pale blue glaze, faded, bronze bar in place.....

No. 458. Apr. 28. Scarab. Steatite. 15x11. T.1 greenish blue glaze, faded.....

No. 459. Apr. 28. Scarab. Steatite. 15x11. T.1 white glaze.....

No. 460. Apr. 28. Scarab. Faience. 18x14. T.1 white glaze nearly gone.....

No. 461. Apr. 28. Scarab. Steatite. 14x10. T.1 white glaze.

No. 462. Apr. 28. Beads: serpentine, carnelian; T.1 barrel shaped, T.1 poppy shaped. Bracelets, bronze, 54d., T.1 frags.....

No. 464. Apr. 28. Bowl. Lt. br. 332d. T.1E. grey core, wet sm. yellowish surface..... 189

No. 465. Apr. 28. Bowl. Lt. br. 313d. T.1E. grey core, wet sm. pinkish or buff surface..... 189

No. 466. Apr. 28. Bowl. Br. 305d. T.1E. gr. core, wet sm. buff surface..... 171, 189

No. 467. Apr. 28. Bowl. Br. 190d. T.1E. gr. core, wet sm. to buff.....

No. 468. Apr. 28. Jug. Lt. br. 177h. T.1E. full of large gr. white grits, wet sm. to pinkish surface, 3 red bands on neck, over rim and on body..... 169, 181

No. 469. Apr. 28. Jug. Lt. br. 121h. T.1E. polished, two sets of bands of three bistre between red..... 169, 183

No. 470. Apr. 28. Lamp. Lt. br. 175d. T.1E. grey core, wet sm.....

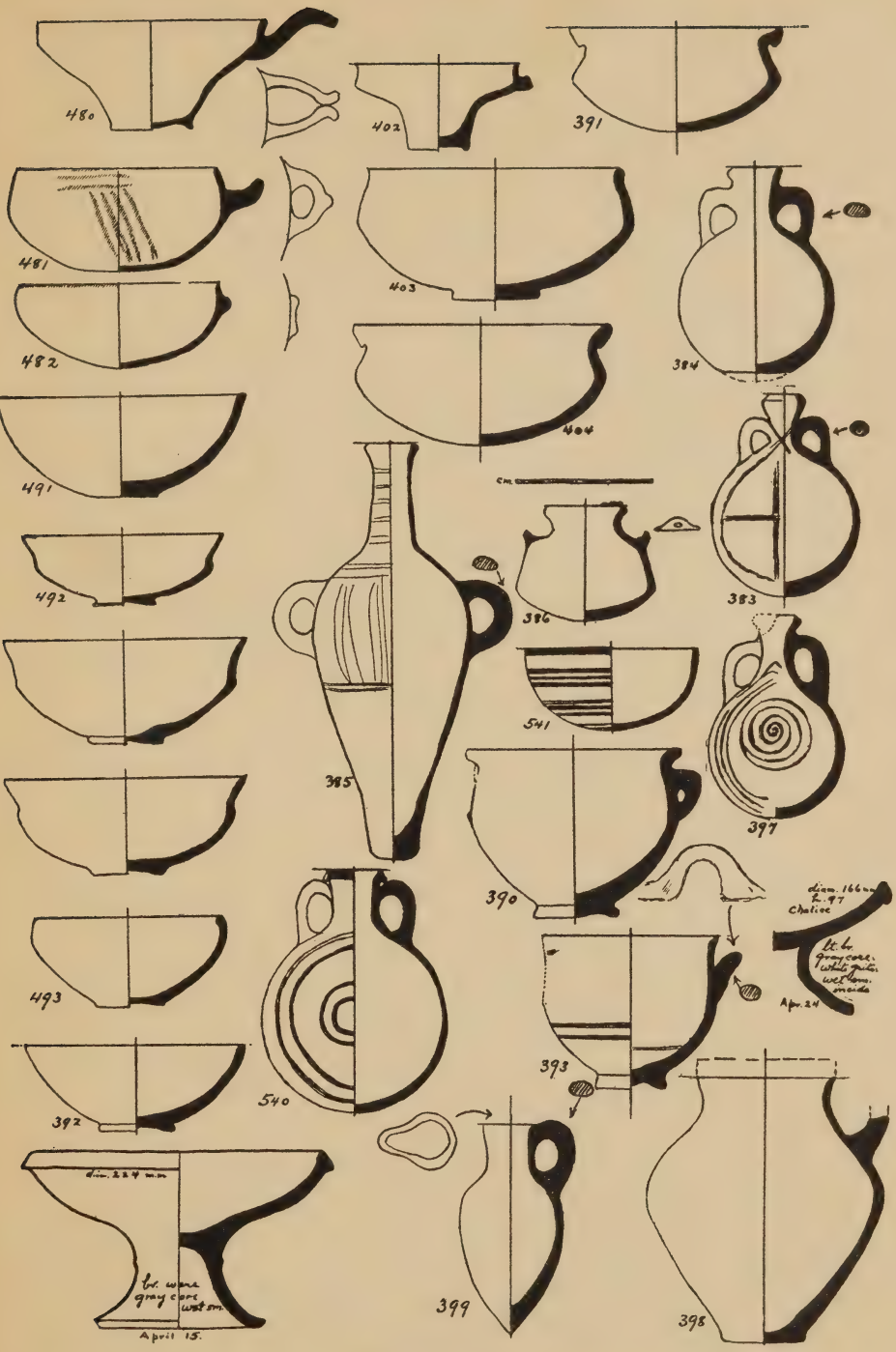
No. 471. Apr. 28. Lamp. Br. 168d. T.1E. grey core.....

No. 472. Apr. 28. Lamp. Br. 161d. T.1E. grey core.....

No. 473. Apr. 28. Lamp. Br. 127d. T.1E. grey core.....

No. 474. Apr. 28. Jug. Lt. br. 278h. T.1E. grey core wet sm. to a pinkish surface..... 165, 183

No. 475. Apr. 28. Pyx. Br. 142h. T.1E. cream slip, dec. in dull red..... 169, 189



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No. 476. Apr. 28. Pyx. Reddish brown. 108d. T.1E. full of tiny white specks, alternate dec. bands of red and bistre 169, 189

No. 477. Apr. 28. Pyx. Brown. 97d. T.1E. wet sm., gr. core, similar to above in shape, dec. in dull red bands .....

No. 478. Apr. 28. Jar. Lt. br. 203h. T.1E. wet sm., dull red bands 165, 181

No. 479. Apr. 28. Jug. Lt. br. 167h. T.1E. large white grits, surface is polished reddish, red dec 181

No. 480. Apr. 28. Bowl. 168d. T.1E. fine thin red ware, wishbone handle; partly polished inside and outside; outside of rim blackened in firing: under bottom a scratched device. See No. 77 in the Cyprus Collection at the Louvre 165, 191

No. 481. Apr. 28. Bowl. Lt. br. 162d. T.1E. wet sm., dull red lines three on rim and four groups of four each on side 165, 191

No. 482. Apr. 28. Bowl. Br. 152d. T.1E. slip sm., polished outside, red rim, gr. core 191

No. 483. Apr. 28. Jug. Lt. red. 225h. T.1E. "bilbil" type, white and black grits, wet sm., red 181

No. 484. Apr. 28. Jug. Brown. 195h. T.1E. wet sm. to buff, red dec. much obliterated, white grits 181

No. 485. Apr. 28. Jug. Lt. br. 205h. T.1E. wet sm. yellowish surface, gr. core, dec. in red with white between the red 181

No. 486. Apr. 28. Bowl. Lt. br. 152d. T.1E. grey core 189

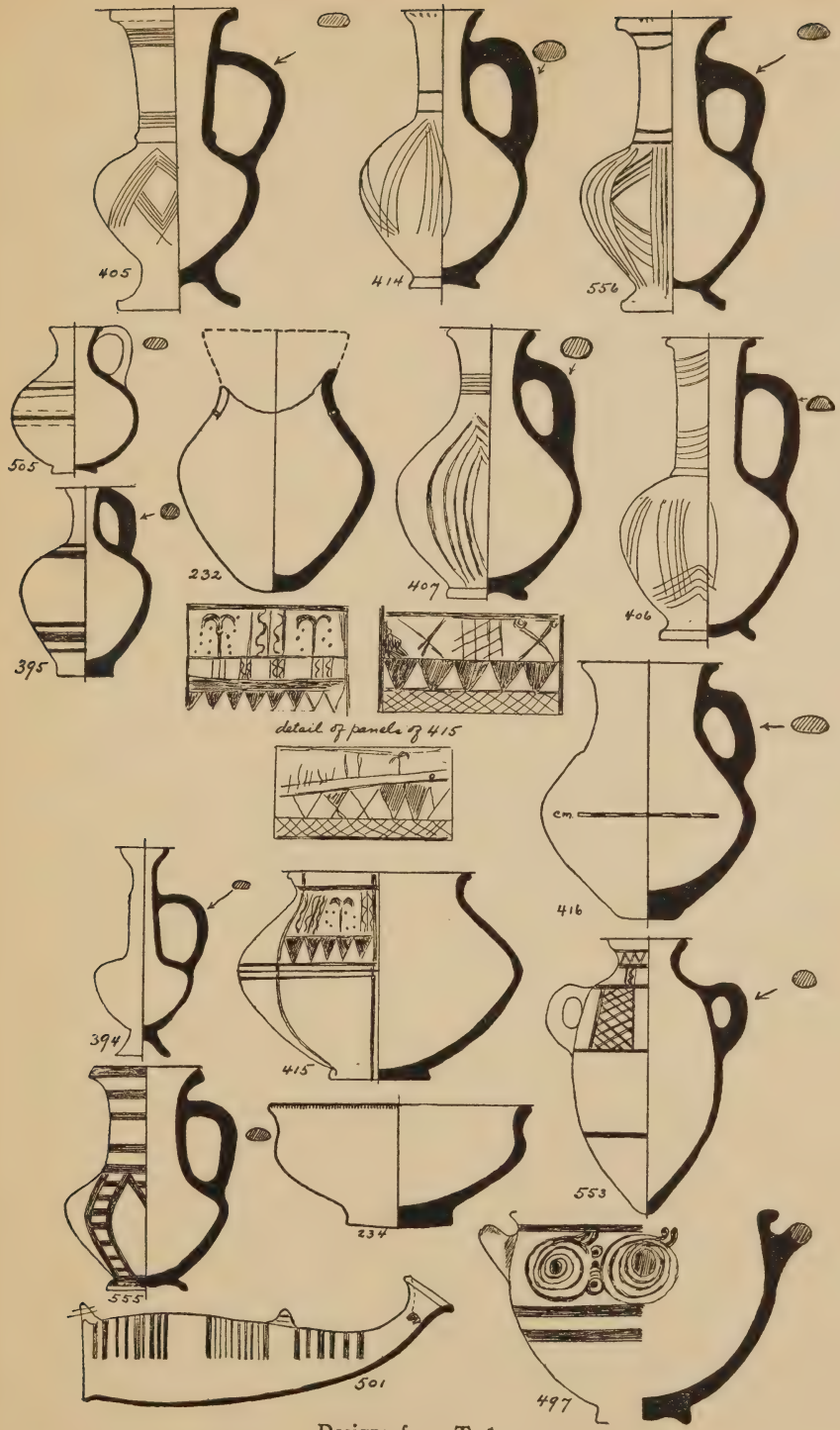
No. 487. Apr. 28. Bowl. Lt. br. 159d. T.1E. grey core ....

No. 488. Apr. 28. Bowl. Lt. br. 138d. T.1E. grey core, rim slightly incurved .....

No. 489. Apr. 28. Bowl. Lt. br. 155d. T.1E. grey core ....

No. 490. Apr. 28. Bowl. Lt. br. 173d. T.1E. grey core ....

No. 491. Apr. 28. Bowl. Lt. br. 178d. T.1E. grey core, wet sm., traces of fire inside 191



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No. 492. Apr. 28. Bowl. 144d. T.1E. fine thin lt. br. paste, bl. core, wet sm. 191

No. 493. Apr. 28. Bowl. 140d. T.1E. pale greenish ware, wet sm., one edge pressed in accidentally 191

No. 494. Apr. 28. Bowl. Lt. br. 298d. T.1E. gr. core, wet sm. 171, 189

No. 495. Apr. 28. Bowl. Lt. br. 285d. T.1E. large white grits, cream slip scaled off 171, 189

No. 496. Apr. 24. Juglet. Lt. br. 140h. T.1 grey core, wet sm., trefoil mouth 175, 195

No. 497. Apr. 24. Pot. Lt. br. 196d. Grey core, slip sm. creamish, thin, streaky, dec. 3 spirals one side and 2 spirals between stripes vertical; other side on rim red strokes in groups of 3 to 5 193

No. 498. Apr. 24. Jug. Yellowish brown. 294h. Wet sm. grits, trefoil mouth 175, 183

No. 499. Apr. 24. Jug. Lt. br. 260h. Wet sm., gr. grits, buff surface, trefoil mouth 175, 183

No. 500. Apr. 24. Jug. Lt. br. 375h. Grey core, wet sm. to a pinkish cream, trefoil mouth 175

No. 501. Apr. 24. Flask. Lt. br. 257h. Wet sm. 3 groups of narrow dull red bands, neck sealed with green wax, suspension holes in lugs, good flat bottom for standing. A cornucopia type in the Louvre has an opening in the large end and no suspension lugs ..167, 193

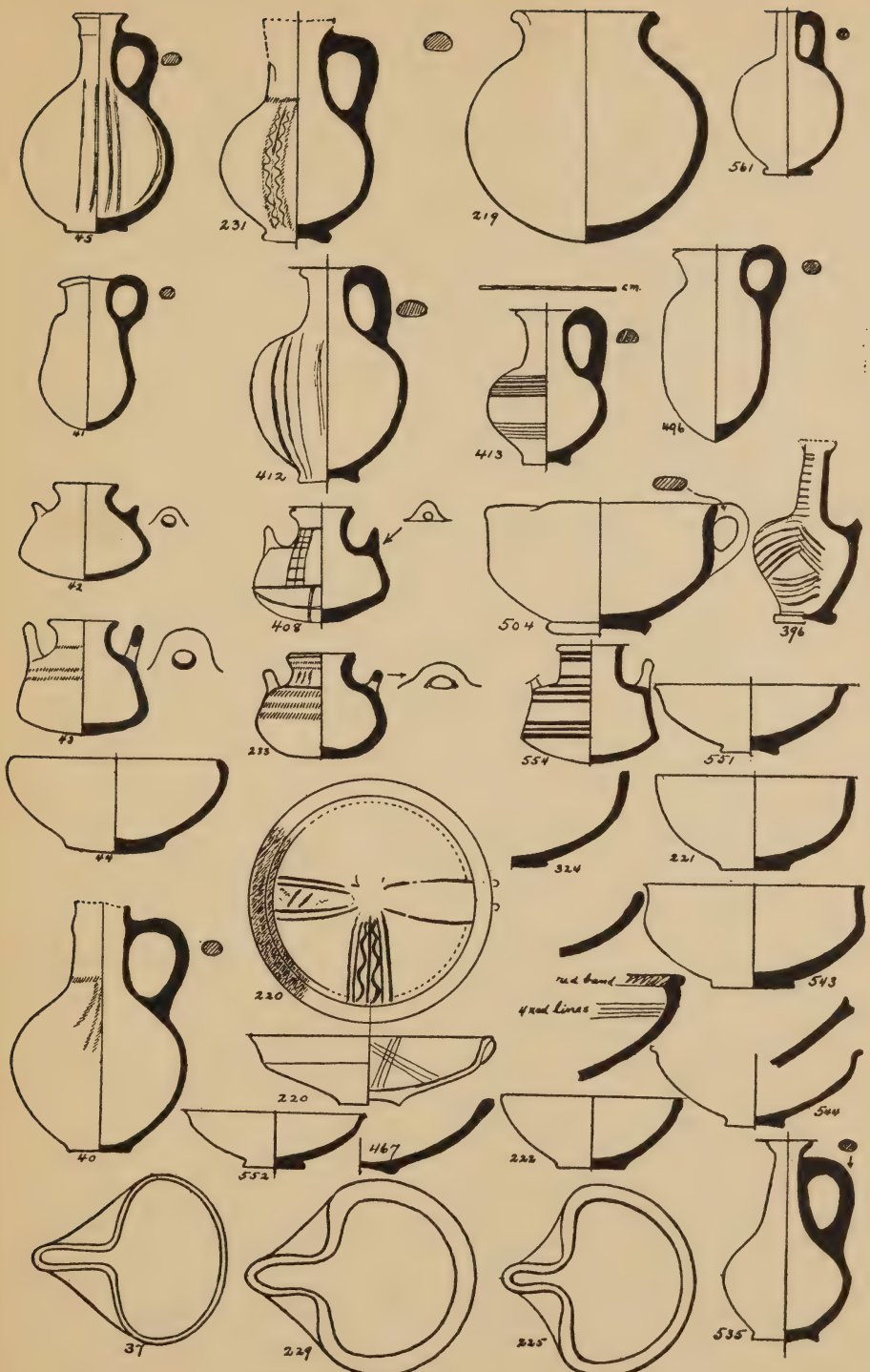
No. 502. Apr. 24. Jug. Lt. br. 232h. Gr. core, wet sm. to cream surface, dec. a faded brown 181

No. 503. Apr. 24. Jug. Br. 225h. Gr. core, wet sm. to pinkish surface, haematite red strokes 181

NOTE:—These types are late form of "bilbil"; local manufacture; heavier fabric. Decoration a poor imitation of original white basket weave.

No. 504. Apr. 24. Bowl. Lt. br. Ca170d. Wet sm., large pressed in lip, spout, handle 167, 195

No. 505. Apr. 24. Juglet. Lt. br. 102h. Gr. core, red slip polished horizontally; around lower shoulder 2 black bands on wider white one 193



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No. 506. Apr. 24. Jug. Lt. br. 190 l. Animal form, head for spout, tail up over back; two jars slung imitation rope carriers at either side. These jars which are wide mouthed are the fillers for the jug. dec. in dull red 167

No. 507. Apr. 28. Bowl. 250d. T.1E. usual br. ware with gr. core, fragmentary, pinkish cream slip, red lattice bands 189

No. 508. Apr. 30. Pyx. 83h., 110d. Fine buff paste finely smoothed dark sienna dec. bands, lines and lattice pattern. *Cf.* Gjerstad, p. 214. One like this in the Louvre is in the Egyptian Collection, another in the Rhodian 163, 189

No. 509. Apr. 30. Bugelkanne or Stirrup-vase. 110d., 119h. Fine yellowish buff paste well smoothed, sienna dec., main motif on body is 3 thin lines bet. broad bands. A central band has a lighter tint of brown bet. pairs of two 163, 189

No. 510. Apr. 30. Flask. 138h., 90d. T.1E. a fine buff paste, glossy red dec. inside neck is red. See Gjerstad, page 219 ..... 163, 189

No. 511. May 4. Bracelet. Bronze. 72d. T.1 lapped joint .....

No. 512. May 4. Bracelet. Bronze. 80d. T.1 lapped ends taper .....

No. 513. May 4. Earring. Bronze. 13d. T.1 crescent shape .....

No. 520. May 3. Bodkin. Gold. 80 l. T.1 new part 187

No. 521. May 3. Scarab. 16x11. T.1 .....

No. 522. May 3. 2 beads. Faience, carnelian. T.1 .....

No. 523. May 3. Dagger. Bronze. 315 l. T.1 broken 185

No. 524. May 3. Earring. Bronze. 20d. T.1 .....

No. 525. May 3. Scarab. Steatite. 20x14. T.1 white glaze..

No. 526. May 3. 2 beads. Serpentine, faience. T.1 .....

No. 527. Apr. 30. Jug. Lt. br. 202h. T.1E. creamy gr. slip, dec. reddish br. lines, half of handle painted vertically with broad stripes 183

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No. 528.	Apr. 30. Jug. Lt. br. to reddish. 231h. T.1E. white grits, wet sm. to pinkish, dec. with reddish br. lines..	183
No. 529.	Apr. 30. Jug. Lt. br. 232h. Grey core, wet sm. dec. with red lines.....	183
No. 530.	Apr. 30. Jug. Lt. br. 200 + h. White grits, burnished dec. red and bistre lines.....	183
No. 531.	Apr. 30. Jug. Lt. br. 209h. T.1E. red slip rubbed dec. black lines.....	183
No. 532.	Apr. 30. Bowl. Lt. br. 155d. Wet sm., white grits..	189
No. 533.	Apr. 30. Bowl. Br. 144d. Few very large grits...	189
No. 534.	Apr. 30. Jug. Lt. br. 177h. Wet sm. yellowish surface.....	183
No. 535.	Apr. 30. Jug. Lt. br. 146h. Burnished red surface dark grits.....	195
No. 536.	Apr. 30. Jug. Lt. br. 145h. Creamy gr. slip nearly gone, large white and grey grits.....	187
No. 537.	Apr. 30. Jug. Lt. br. 126h. Wet sm., white grits..	189
No. 538.	Apr. 30. Bowl. Lt. br. 177d. Wet sm., inside, white grits.....	189
No. 539.	Apr. 30. Bowl. Lt. br. 144d. Gr. core, red dec. bands fr. edge to edge across bottom and one around rim outside.....	189
No. 540.	Apr. 24. Flask. Lt. br. 175h., 134d. T.1 dec. concentric rings of raspberry red; rim and handles painted same color.....	167, 191
No. 541.	Apr. 24. Bowl. Lt. br. 124d. Gr. core burnished dec. red and bistre stripes, one bistre bet. 2 red....	191
No. 542.	Apr. 24. Bowl. Lt. br. 192d.....	189
No. 543.	Apr. 24. Bowl. Lt. br. 162d. Many large white grits.....	195
No. 544.	Apr. 24. Bowl. Br. 304d. Wet sm.....	195
No. 545.	Apr. 30. Lamp. Pinkish br. 130d. T.1E. wet sm..	
No. 546.	Apr. 24. Bowl. Lt. red. 174d. T.1 white grits....	
No. 547.	Apr. 24. Bowl. Lt. br. 198d. Wet sm.....	189
No. 548.	Apr. 24. Bowl. Lt. br. 155d. Wet sm. dark grits..	

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No. 549. Apr. 24. Bowl. Lt. br. 159d. Wet. sm., white and dark grits, dec. on rim raspberry red.....

No. 550. Apr. 24. Bowl. Lt. br. 166d. Gr. core, wet sm....

No. 551. Apr. 24. Bowl. Lt. br. 280d. Gr. core, wet sm., white grits..... 195

No. 552. Apr. 24. Bowl. Lt. br. 263d. Gr. core, wet sm., large white grits..... 195

No. 553. Apr. 24. Jug. Lt. br. 192h. Yellowish cream slip dec. raspberry red striping lattice design..... 177, 193

No. 554. Apr. 24. Pyx. Lt. br. 100d., 95h. Dk. gr. core, burnished, dec. red lines..... 195

No. 555. Apr. 24. Jug. Lt. br. 155h. Dk. gr. core, wet sm., dec. red lines..... 193

No. 556. Apr. 24. Jug. Very lt. br. 206h. Wet sm. dec. red lines..... 193

No. 557. Apr. 24. Jug. Lt. br. 280h. Wet sm., large white grits gr. core..... 185

No. 558. Apr. 24. Dish on alabaster standard. 110d. Somewhat decayed.....

No. 559. Apr. 26. Juglet. Fine buff paste. 73h. T.1 towards E. well smoothed lustrous surface, vermilion red bands. *Cf.* Gjerstad, p. 215. See the Cyprus Collection at the Louvre, No. 93..... 163, 187

No. 560. Apr. 26. Jug. Fine buff paste. 100h. Lustrous surface, red dec. well smoothed..... 163, 187

No. 561. Apr. 26. Juglet. Lt. reddish. 122h. Wet sm. to cream surface..... 163, 195

No. 562. May 1. Beads. Carnelian, faience, bronze. T.1....

No. 563. Apr. 25-26. Beads. 3 carnelian, 3 faience. T.1...

No. 564. Apr. 25-26. Scarab. Steatite. 15x10. T.1 faded blue glaze.....

No. 565. Apr. 24. Earrings, beads. Bronze. Ca 30d. T.1 crescent rings and tiny beads.....

No. 566. Apr. 28. Amulet. Faience. 36l. Crocodile, pale blue.

No. 567. May 1. Hook. Bronze.....

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No. 568.	Apr. 25. Bowl. Lt. br. 152d., 50h. T.1 tunnel, gr. core, wet sm	175
No. 569.	Apr. 25. Spout. Lt. br. 80 l. animal head, ears, horns, neck, dec. red	175
No. 570.	Apr. 25. Standard Dish. Rich br., 100h.; top, 180w.; bottom, 120w. Wet sm	175
No. 571.	Apr. 25. Flask. Lt. br., 180h.; broad, 125d.; narrow, 100d. Wet sm. dec. concentric circles, red and bistre and bull's eye centre bistre	167
No. 572.	Apr. 25. Open dish. Rich br. 228d. Raspberry red inner rim then 4 concentric red circles and 6 of same in bottom of dish; no dec. outside; wet sm. outside, slip sm. within	167
No. 573.	Apr. 25. Vase. Rich br. 240h., 117w. Two handles, tapering base, wet sm. dec. red bands with zigzags between	167
No. 574.	Apr. 25. Strainer Jar. Bail and spout formerly, broken top	177
No. 575.	Apr. 25. "Bilbil" Jug. Br. 290h., 150w. Darker br. slip ornamented horizontally on neck and slightly off the vertical on body	177
No. 576.	Apr. 25. Bowl, pyx-like. Lt. br. 126h., 148w. Lattice dec. in vertical bands	177
No. 577.	Apr. 25. Vase. Lt. br. 210h., 91w. Slip sm., tapering base with flange	177
No. 578.	Apr. 23. Jar. Lt. br. 580h., 270w.; neck, 120 l., 140w. T.I. two handles, extra wide mouth; contained juglet No. 615	173
No. 579.	Apr. 23. Jar. Lt. br. 350h., 235w.; neck, 103 l., 110w. One handle, extra wide mouth, ridge about neck where top of handle joins	173
No. 580.	Apr. 23. Jug. Lt. br. 230 l., 154w. One handle	173
No. 581.	Apr. 26. Juglet. 100h., 65w. T.1 towards 2 wavy line mouth	
No. 582.	Apr. 22. Open-dish. Lt. br. 345d., 115h. T.1 wet sm	167

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No. 583. Apr. 22. Open-dish. Br. Ca 300d., ca 100w. Gr. core, warped 167
No. 584. Apr. 22. Open-dish. Drab. 60h., 165w. Thin gr. core 167
No. 585. Apr. 22. Jug. Cream br. 355h., 250w. One handle, wet sm. damaged 175
No. 586. Apr. 22. Jug. Lt. br. Ca 400h., ca 265w. Gr. core, rosy slip, one handle (damaged) 175
No. 587. Apr. 22. Jug. Lt. br. 310h., 225w. One handle, wet sm. slight tendency to fluting in handle (damaged) 175
No. 592. Apr. 26. Pail. Lt. br. 230h., 205w. T.1 (2E) spout, strainer with 10 holes and bail; cream slip ... 169
No. 593. Apr. 26. Pyx-like bowl. Lt. br. 145h., 170w. Very rounding base; dec. checker pattern in red around waist, wet sm. burnished 169
No. 594. Apr. 26. Jug. 180h., 125½w. T.1 (2E) slender neck, one handle, dec. on bowl with horizontal red bands 169
No. 595. Apr. 26. Jug. Pale br. to grey. 190h., 135½w. T.1 (2E) wet sm., white grits creamy lt. gr. surface 169
No. 596. Apr. 26. Jug. T.1 (2E) with bail similar to 592, 14 holes in strainer .....
No. 597. Apr. 26. Dish. T.1 (2E) duplex handles either side dec. lattice and animal motif 177
No. 598. Apr. 22. Dish. Lt. br. 220 + h., 210w. T.1 globular, 3 loops for legs, wet sm. gr. core 177
No. 599. Apr. 22. Pyx. Very lt. br. 97h., 111w. T.1 gr. core, fine white grits, ridged shoulder 177
No. 600. Apr. 22. Pyx. Very lt. br. 97h., 137w. T.1 well smoothed, dec. sienna bands, small lattice work on shoulders, varied motif bet. these last, 3 handles, 1 missing 177
No. 601. Apr. 22. Pyx. 177
No. 602. Apr. 22. Pyx. Br. 80h., 90w. Two lugs pierced, red band on rim and neck, then vertical double ladder patterns, crossed bands on bottom 177

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No. 603. Apr. 23. Pot. Dk. br. 112h., 220w. T.1 cooking vessel, gr. core, white grits..... 173

No. 604. Apr. 23. Vase. Lt. br. 170h., 150w. Three lug handles, dec. red paint on neck and shoulder checkered alternate blank and diagonal lattice design, red ring around base above foot joined by 3 verticals, one dropped from middle of each pierced handle; red over top of each handle..... 173

No. 605. Apr. 23. Bowl. Br. 60h., 136w. Wishbone handle, cream slip, red rim, dec. fr. rim to base with groups of 3 red stripes 3 times..... 173

No. 606. Apr. 23. Jug. Lt. br. 126h. "Bilbil," red slip..... 173

No. 607. Apr. 22. Juglet. Lt. br. Cream slip, white grits, trefoil mouth..... 177

No. 608. Apr. 22. Jug. Bulbous, one handle, rosy surface... 177

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No. 610. Apr. 22. Jug..... 173

No. 611. Apr. 22. Jug..... 173

No. 612. Apr. 22. Jug. Rounding to pointed foot..... 169

No. 613. Apr. 22. Jug. Dec..... 169

No. 614. Apr. 22. Bowl. Dec. within..... 169

No. 615. Apr. 22. Juglet. Lt. br., 120h. 76w. at shoulder. Found in 578; wavy asymmetrical mouth.....

No. 621. Apr. 22. Jar. Lt. br., 680h. of body, 350w. near handle. Four handles, gr. core fine white grits, wet sm. to a drab surface..... 171, 175

No. 622. Apr. 26. Pitcher. Lt. br. 140h., 150w. T.1 toward E. strainer, 7 holes, see 592 and 596, bail mended, gr. core, ring foot.....

No. 623. Apr. 26. Bowl. Lt. br. 197d., 65h. Burnished, dec. within by 3 red lines each way forming cross and 2 wavy lines bet. straight ones: ring base.....

No. 624. Apr. 26. Flask. Lt. drab. 120h., 65 short d., 87 long d. One handle on side of short diam., wet sm. to cream surface, dec. bistre, dec. on edge.....

No. 625. Apr. 26. Jug. Grey. 158h., 95w. Cream br. slip, trefoil mouth, rounding base.....

No. 626. Apr. 26. Jug. Lt. br. 236h., 155w. Tapering lower half to round flat foot, trefoil mouth.....

No. 628. Apr. 25. Pyx. Reddish brown. 85h., 100d. T.1 tunnel—brown slip, lugs, dec. red bands and lattice crossed on bottom.....

No. 629. Apr. 25. Pyx. Reddish brown. 70h., 89d. T.1 tunnel—cream slip, raspberry paint ladder and bands, crossed on bottom, lugs.....

No. 630. Apr. 25. Lamp. Lt. br. 140d. T.1 tunnel—long narrowly pinched spout.....

No. 631. Apr. 25. Lamp. Lt. br. 140d. T.1 tunnel—narrowly pinched spout.....

No. 632. Apr. 25. Lamp. Lt. br. 140d. T.1 tunnel—shorter narrowly pinched spout.....

No. 633. Apr. 25. Lamp. Drab. 150d. T.1 tunnel—shallow short narrowly pinched spout.....

No. 634. Apr. 25. Lamp. Lt. br. 140d. T.1 tunnel—very round, very short spout.....

No. 635. Apr. 25. Lamp. Lt. br. 155d. T.1 tunnel—narrow spout.....

No. 636. Apr. 25. Lamp. Lt. br. 160d. T.1 tunnel—narrow spout.....

No. 637. Apr. 25. Pyx. Lt. br. 75h., 90w. T.1 tunnel—lugs, dec. 4 times with red ladder patterns.....

No. 638. Apr. 25. Pyx. Br. 150h., 193w. T.1 tunnel—dec. red stripes above ring base 4 stripes fr. this up to shoulder; on shoulders 3 ladder patterns either side to base of neck 2 bands and zigzag bet. around neck; under each lug diagonal cross in red.....

No. 639. Apr. 25. Juglet. Lt. br. 122h. T.1 tunnel—fluted mouth, approx. trefoil.....

No. 640. Apr. 25. Pyx. Lt. br. Ca 75h. T.1 tunnel—surface and dec. worn off.....

No. 641. Apr. 25. Dish. Lt. br. T.1 tunnel—standard, mended.

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No. 642. Apr. 25. Bowl. Lt. br. 150d. T.1 tunnel—simplest form, slightly flaring base.....

No. 643. Apr. 25. Bowl. Lt. br. 150d. T.1 tunnel—slight ring base, flat.....

No. 644. Apr. 25. Bowl. Lt. br. 155d. T.1 tunnel—slight ring base, flat.....

No. 645. Apr. 25. Bowl. Lt. br. 190d. T.1 tunnel—lt. gr. core, deep.....

No. 646. Apr. 25. Bowl. Grey br. 132d. T.1 tunnel—slight flange at base.....

No. 647. Apr. 25. Jug. Lt. br. 171h., 130w. T.1 tunnel—very light gr. core, cream slip, slim short neck, one handle, bulging body, ring base concave 55d...

No. 648. Apr. 25. Jug. Lt. br. 240h. T.1 tunnel—gr. core, long neck flaring mouth, one handle, wide concave ring base descendant of "bilbil"; white grits, 2 nearly parallel deeply scratched lines on handle vertically before firing.....

No. 723. May 5. Scarab. Paste. 16x11. T.1 molded, pale blue glaze.....

No. 724. May 5. Beads. Faience. T.1 pale blue discs.....

No. 725. May 5. Amulet. Faience 13h. T.1 Ptah embryo, pale blue.....

No. 726. May 13. Scarab. Steatite. 20x16. T.1 traces greenish blue glaze, part of swivel in place.....

No. 727. May 13. Scarab. Steatite. 18x13. T.1 white glaze

No. 728. May 13. Scarab. Steatite. 14x11. T.1 white glaze

No. 729. May 13. Scarab. Steatite. 19x13. T.1 white glaze bronze swivel.....

No. 730. May 13. Scarab. Steatite. 12x10. T.1 white glaze.

No. 731. May 13. Scarab. Steatite. 18x13. T.1 traces blue glaze, 2 couchant leopards, reversed.....

No. 732. May 13. Scarab. Steatite. 14x10. T.1 white glaze.

No. 733. May 13. Scarab. Faience. 18x13. T.1 blue glaze, faded, "Khepher" and badly worn.....

No. 734. May 13. Ring. Silver. 20d. T.1 with bezel.....

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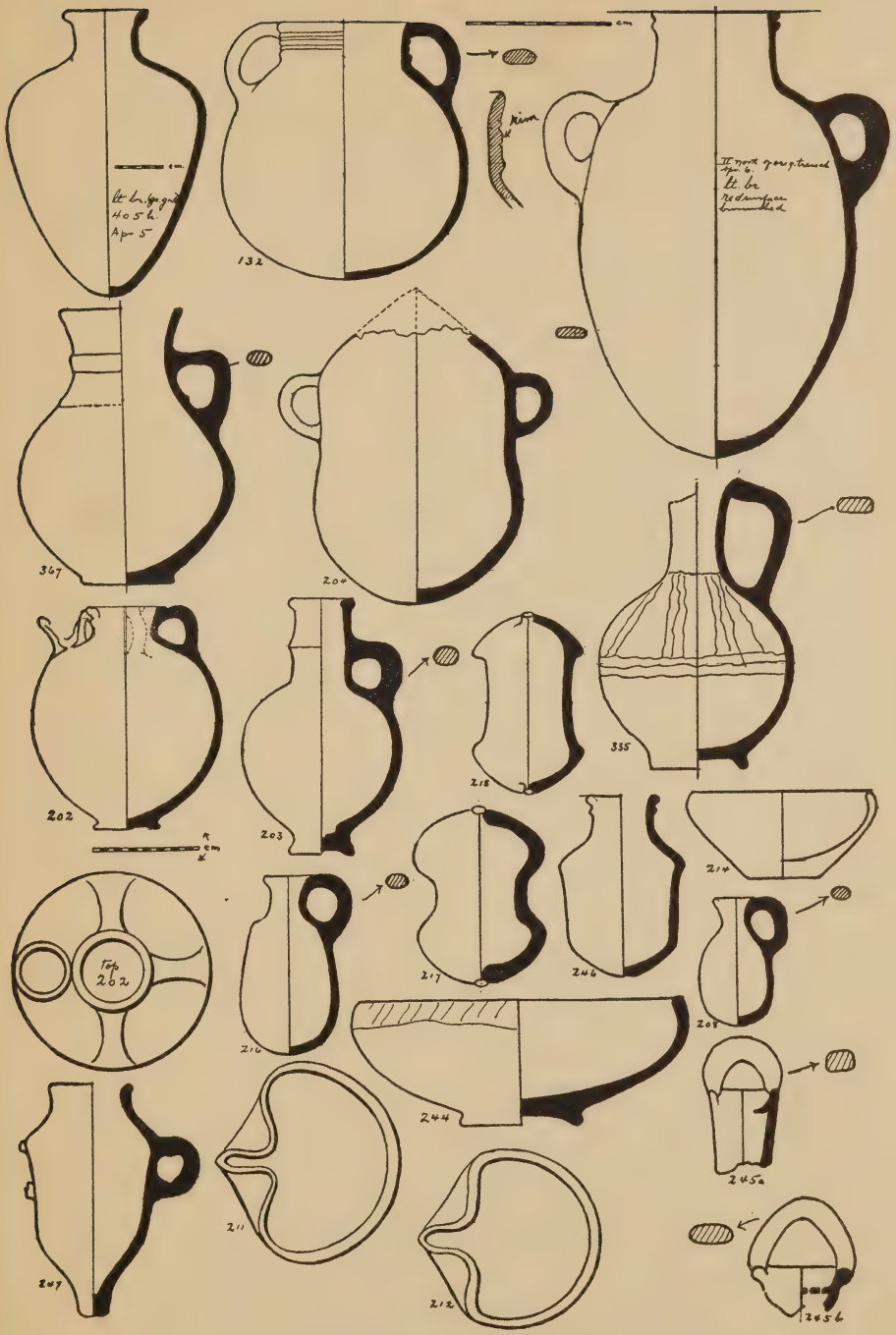
No. 735. May 13. Amulet. Carnelian. 31 l. T.1 "uraeus."..
No. 736. May 13. Ring. Silver. 23d. T.1 lapped joint.....
No. 737. May 13. Beads. Faience, paste, carnelian. T.1 discs, poppy, pendant ball.....
No. 738. May 13. Seal. Serpentine. 14x10. T.1 much worn.
No. 739. May 13. Ring. Bronze. 22d.....
No. 758. May 5-7. Ring. Silver. 23d. T.1 with bezel.....
No. 759. May 5-7. Scarab. Steatite. 17x12. T.1 white glaze.
No. 760. May 5-7. Scarab. Steatite. 18x12. T.1 white glaze.
No. 761. May 5-7. Scarab. Steatite. 22x17. T.1 faded pale blue glaze.....
No. 762. May 5-7. Scarab. Steatite. 15x11. T.1 faded pale blue glaze.....
No. 763. May 5-7. Scarab. Carnelian. 18x14. T.1.....
No. 764. Apr. 28. Cup. Lt. br. 70h., exclusive of handle. T.1 gr. core, burnished..... 165, 187
No. 806. May 4. Jar. Pinkish br. 420h. T.1 gr. core, one handle..... 153
No. 810. May 15. Scarab. Steatite. Traces yellow color....
No. 812. May 21. Bead. Faience. 36 l. T.1 blue..... 187



From city debris. Mostly Iron Age.

Objects found in the city debris are illustrated on pages 205 to 215 et passim. For analogues see P. M. B., especially 1 and 4.

Objects Found in City

Page

No. 1. Mar. 12. Jar Handle. With circular Hebrew stamp, lt. red, black core, surface x. N. E..... 213

No. 2. Mar. 12. Jar Handle. With mark; drab ware, scratchings after firing; surf. x. E..... 213

No. 3. Mar. 12. Jar Handle. With mark; dark gray, scratched after firing; surf. x. E..... 213

No. 7. Mar. 14. Jar. Light brown, wet sm., 493h, II first meter, just inside city wall..... 209

No. 8. Mar. 14. Wheel. From toy cart of chariot: spokes and hub made with tool in wet clay; buff, 69d, II..... 209

No. 9. Mar. 15. Chalice. Reddish brown, 185d, traces fire inside bowl, II, near wall inside..... 209

No. 10. Mar. 15. Chalice. Brown, ca 180d, II, near wall inside 209

No. 11. Mar. 19. Frag. of large "hydria"; yellow buff paste, smooth surf., dec. yellowish red: outside wall x., south of original trench..... 209

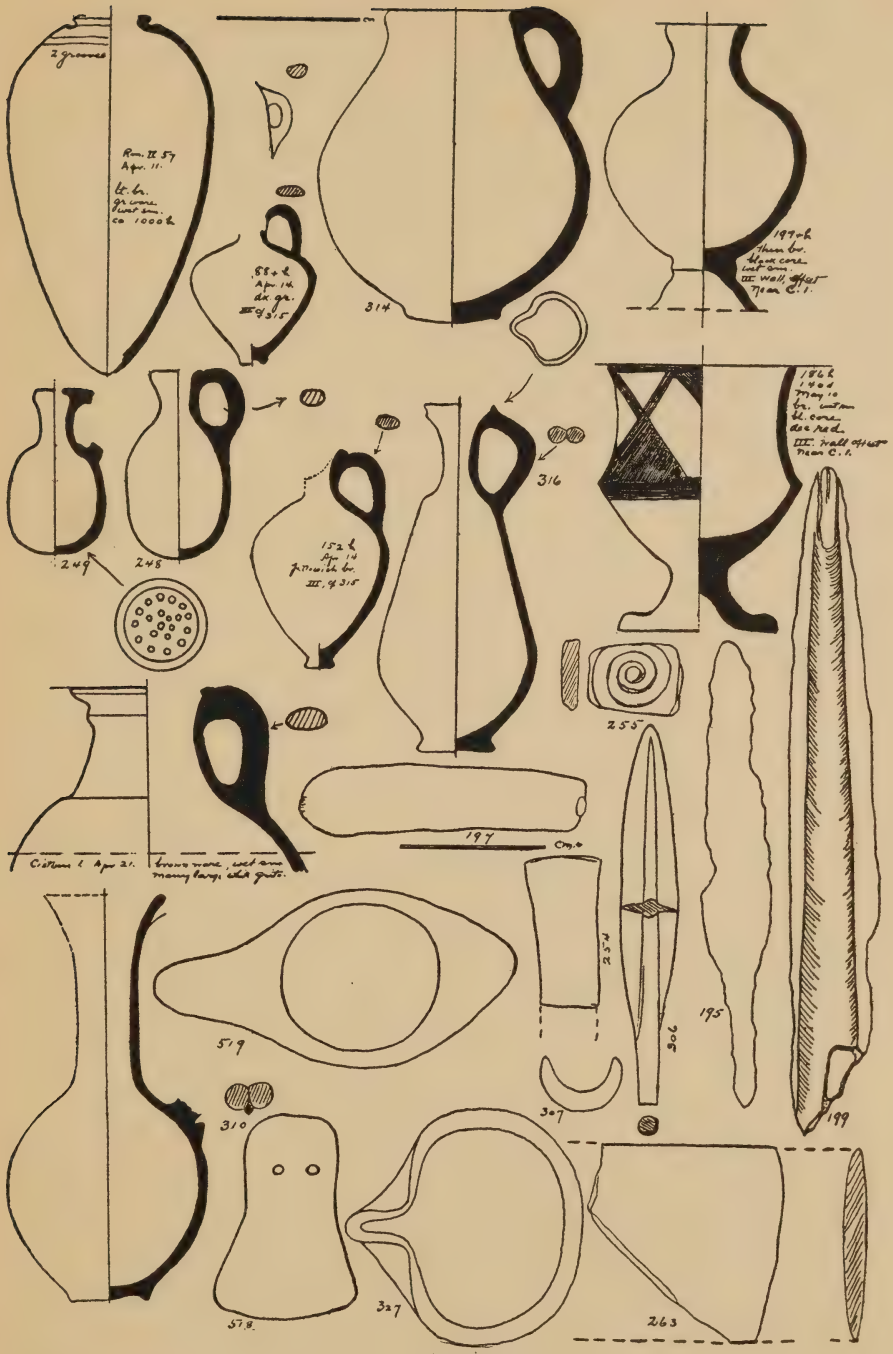
No. 18. Mar. 20. Pot. Light yellowish br. 108d, wet sm.; outside and against city wall, less than 1 m below surf..... 209

No. 19. Mar. 20. Pot. Reddish, 108d, wet sm..... 209

No. 20. Mar. 20. Jug. Light br. cream slip; strainer spout, holes made with stick stuck through fr. outside; dec. in black and red; 5 vertical divisions of 6 strokes each that to left of spout having wavy line between curls and to right wavy line outside the 6: outside and against city wall; less than 1 m below surf..... 209

No. 21. Mar. 20. Jug. Brownish red, wet sm., firing gr., 175h; outside and against city wall, less than 1 m below surf..... 209

No. 24. Mar. 20. Bowl. Lt. red, wet sm., 2 groups of 3 each narrow haematite bands, 201d; outside and against city wall, less than 1 m below surf..... 209



From city debris.

Page

No. 25. Mar. 20. Bowl. Lt. br., wet sm., 99d; outside and against city wall, less than 1 meter below surf. 209

No. 26. Mar. 20. Bowl. Hand-made, dk. gr., 81d; outside and against city wall, less than 1 m below surf. 209

No. 27. Mar. 20. Bowl. Lt. br., wet sm., 80d; outside and against city wall, less than 1 m below surf. 209

No. 28. Mar. 20. Bowl. Bl. core, red surf., red slip, 212d; outside and against city wall, less than 1 m below surf. .. 209

No. 29. Mar. 20. Bowl. Brown, wet sm., 187d; outside and against city wall, less than 1 m below surf. 209

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No. 35. Mar. 20. Frag. of Jug. Greenish, finely sm. surf., dec. in bistre; Rm. II 4 x., over T.2A. 215

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No. 52. Mar. 26. Whorl. Slate, 26d; near III 12 215

No. 54. Mar. 26. Jar Frag. Lt. red, 2 bands orange red with bistre wavy line between; near III 12; *cf.* Harvard Excav. at Samaria I. p283 No. 21a (2909). 215

No. 55. Mar. 26. Frag. Bowl. Drab, 2 bistre bands with deep brownish red band bet., 270d 215

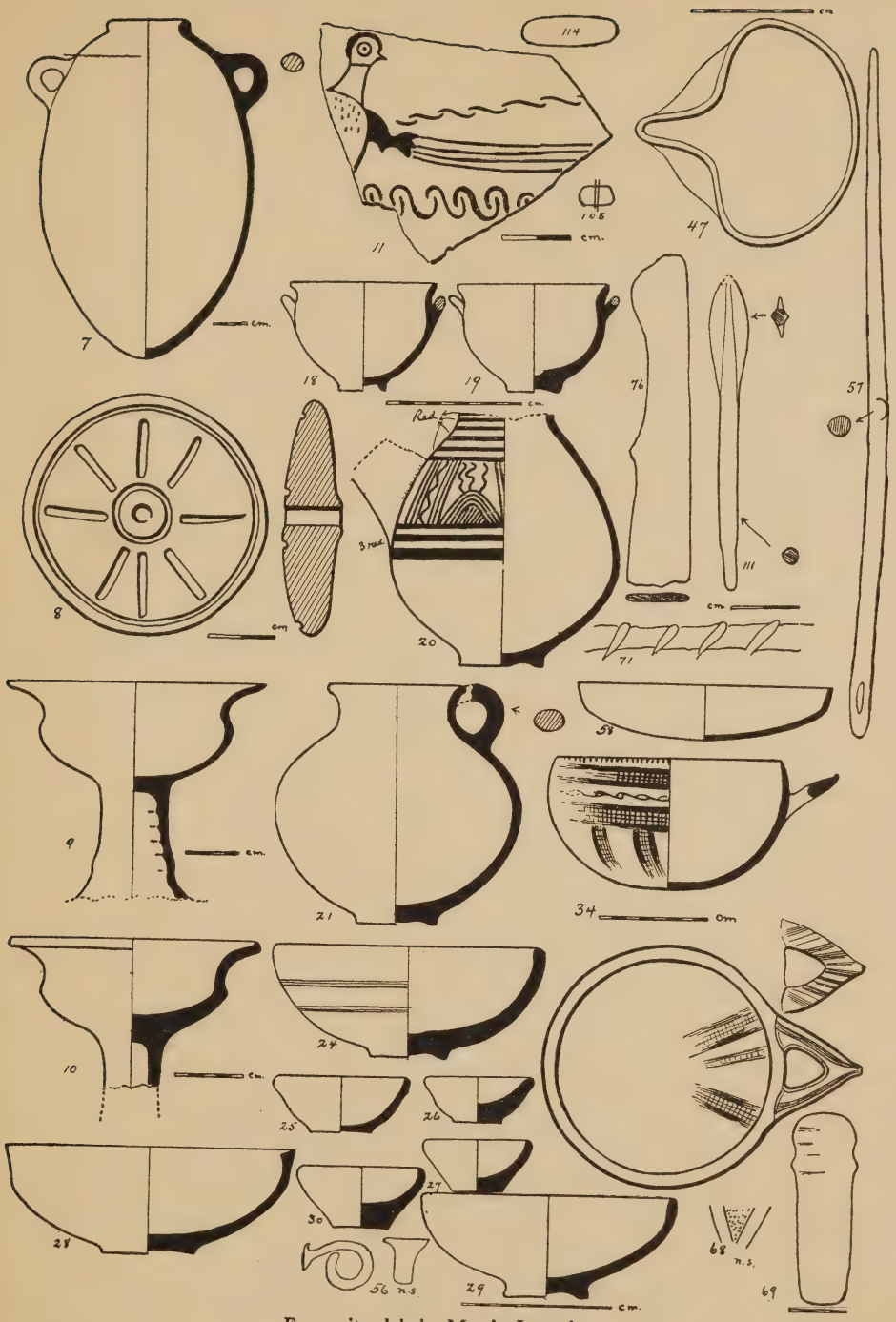
No. 56. Mar. 26. Handle of Cup. Bronze, 38 l; Rm. II 3, 2-3 meters depth 209

No. 57. Mar. 27. Needle. Bronze, 201 l, near offset in wall, west 209

No. 58. Mar. 27. Bowl. Brown ware, black and white grits, inside rim polished, 187d; newest work today around offset? 209

No. 67. Mar. 28. Spear Head. Bronze, 177 l, Rm. II 9 x. .. 211

No. 68. Mar. 28. Base of Jug. Reddish drab ware, bl. surf. divided into 4 by broad plain bands, spaces pitted and white filled; Rm. II 9 x. 209



From city debris. Mostly Iron Age.

Page

No. 69. Mar. 28. Pestle. Basalt, 140l; Rm. II 15 near offset 209

No. 71. Mar. 29. Frag. Large Jar. With rope moulding made by impressing stick, greenish buff, baking grey; eastern edge Rm. II 10 209

No. 76. Mar. 30. Razor. Bronze, 96 + l; Rm. II 2, extra-mural 209

No. 108. Apr. 2. Bead. Carnelian, 9d; extra-mural, N. end near bins 209

No. 111. Apr. 3. Arrow Head. Bronze, 90l; near B. 4. western edge of work outside the wall 209

No. 114. Apr. 3. Weight. Haematite, 29l; near B. 4. north edge outside city wall 209

No. 124. Apr. 4. Neck of Jug. In form of horse-head with bridle; brown ware, gr. core, 55h; nicknamed it "Spark Plug"; intra-mural, S. E. of vat beside 2 presses and floor on eastern edge of "dig" 65

No. 125. Apr. 4. Water Jug. In form of camel with 2 bales on sides held in place with bands; lt. br., yellowish surf., broken; 100 + l; found same place as 124 65

No. 126. Apr. 4. Juglet. Brown, gr. core, wet sm., 102d and 98h; just inside city wall II 211

No. 127. Apr. 4. Juglet. Dk. gr., 62h; just inside city wall II 211

No. 130. Apr. 6. Amulet. *Udat* eye, pale blue faience, 25w; II Rm. 33 85

No. 131. Apr. 6. Stamp. Handle from oil or wine jar. Such jars have 4 handles, all with the same stamp, le Melek Hebrón. Hard, purplish ware; II near temple.

No. 132. Apr. 6. Pot. Dull red, reddish surf., 177h; II east of temple 205

No. 147. Apr. 11. Ring. Paste pale blue glazed, on bezel; Ra-maat-nub, 21d; II 16 .....

No. 148. Apr. 11. Ball Bead. Carnelian, 10d; II 32 .....

No. 149. Apr. 11. Amulet. Pale blue glaze, 22h; II in great street .....

From city debris. Mostly Iron Age.

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No. 195.	Apr. 14. Spear Head. Bronze, 130 l; south corner Peg x. 3, room between walls	207
No. 197.	Apr. 13. Handle. Bone, 78d; intra-mural II	207
No. 199.	Apr. 12. Javelin Head. Bronze, 186 l; II 58, 2-3 meters depth	207
No. 201.	Apr. 7. Astarte Head. Clay, broken fr. figurine, 50 + h; II within the temple	65
No. 202.	Apr. 11. Jar. Lt. br., 3 handles and one spout beside the mouth, 317h, II	205
No. 203.	Apr. 11. Jug. Br., red slip, burnished, 183h; II	205
No. 204.	Apr. 7. Jar. Lt. red, very fine white grits, 390 + h; II inside city	205
No. 205.	Apr. 5. Hole Mouth Jar. Lt. br., irregular grits, 280h; II Rm. 33	211
No. 206.	Apr. 13. Pot. Lt. red, 150d; II Rm. II 58	213
No. 207.	Apr. 6. Jug. Brown, 100h; II intra-mural, north of vat where are 2 presses and floor	211
No. 208.	Apr. 11. Jug. Lt. br. to gray, 89h; II intra-mural	205
No. 209.	Apr. 4. Jug. Gray, lt. reddish surf., contained 2 bits of pumice, several pebbles and 2 charms, some of these showing influence of fire; 152h; II north of Rm. 7	211
No. 211.	Apr. 11. Lamp. Brown, 137d: II	205
No. 212.	Apr. 10. Lamp. Reddish brown, similar to 211; 126d; II	205
No. 214.	Apr. 11. Bowl. Br., red slip, 139d; II	205
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No. 217.	Apr. 11. Rattle. Lt. br., 123h; II	205
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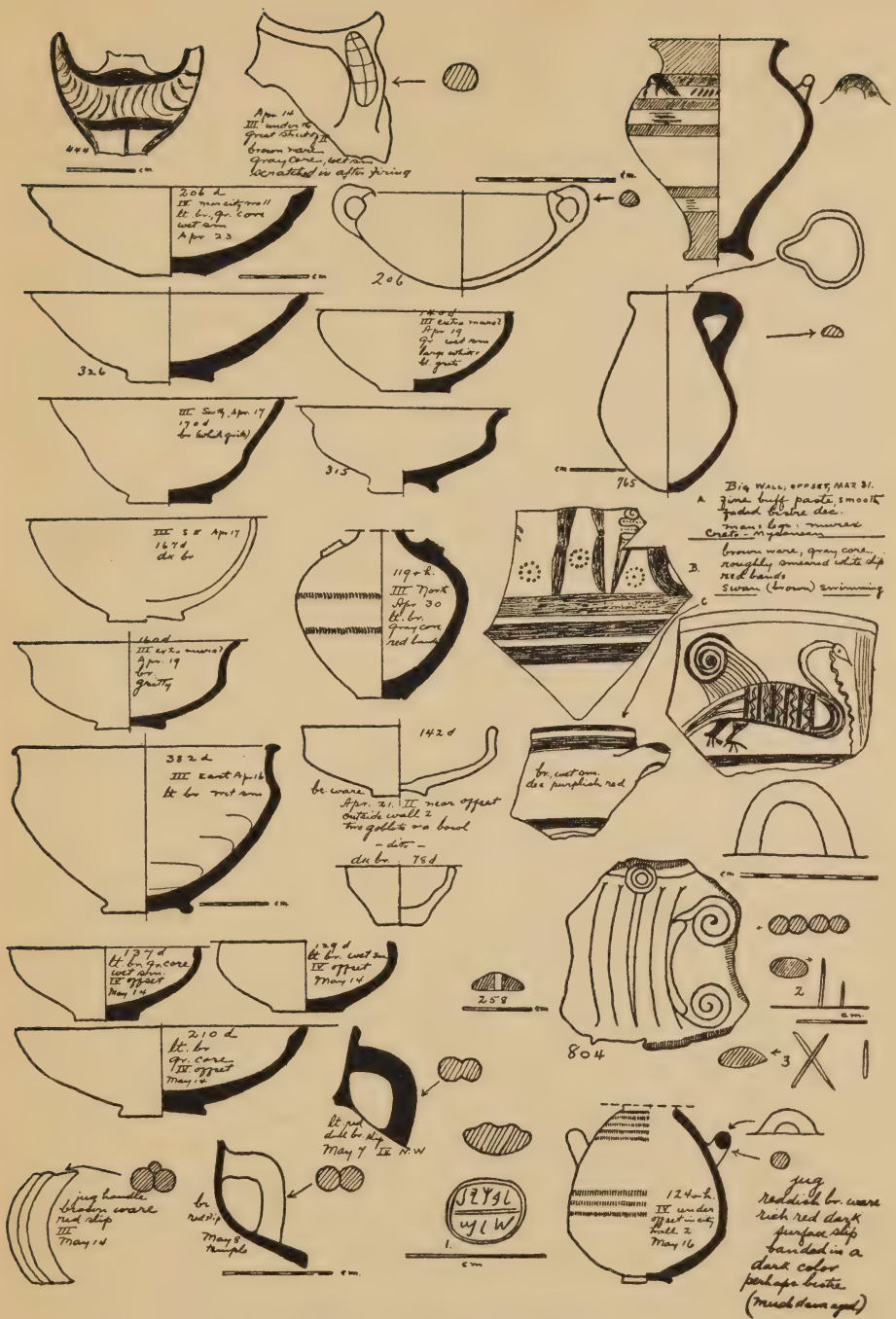
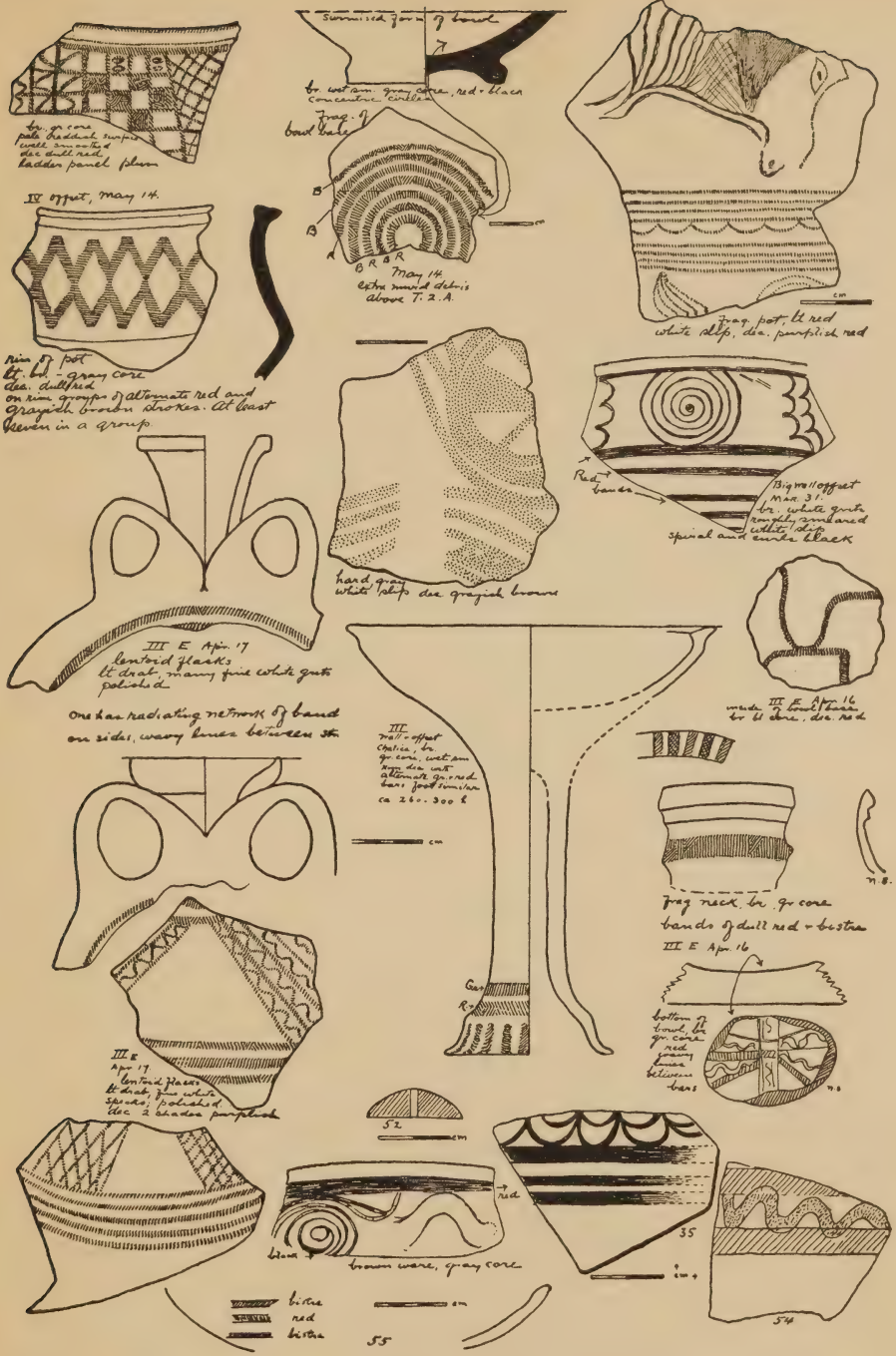
No. 235.	Apr. 11. Bowl. Standard, lt. br., broad haematite band on inner rim, wet sm., 130d; II intra-mural	211
No. 244.	Apr. 6. Bowl. Lt. br., white grits, burnished red inside and down over rim, 243d; intra-mural	205
No. 245. a and b	Apr. 2. Jug Mouths. (a) brown, burnished red, 80h; (b) yellowish brown, 75h; II 37	205



From city debris. Various Ages.

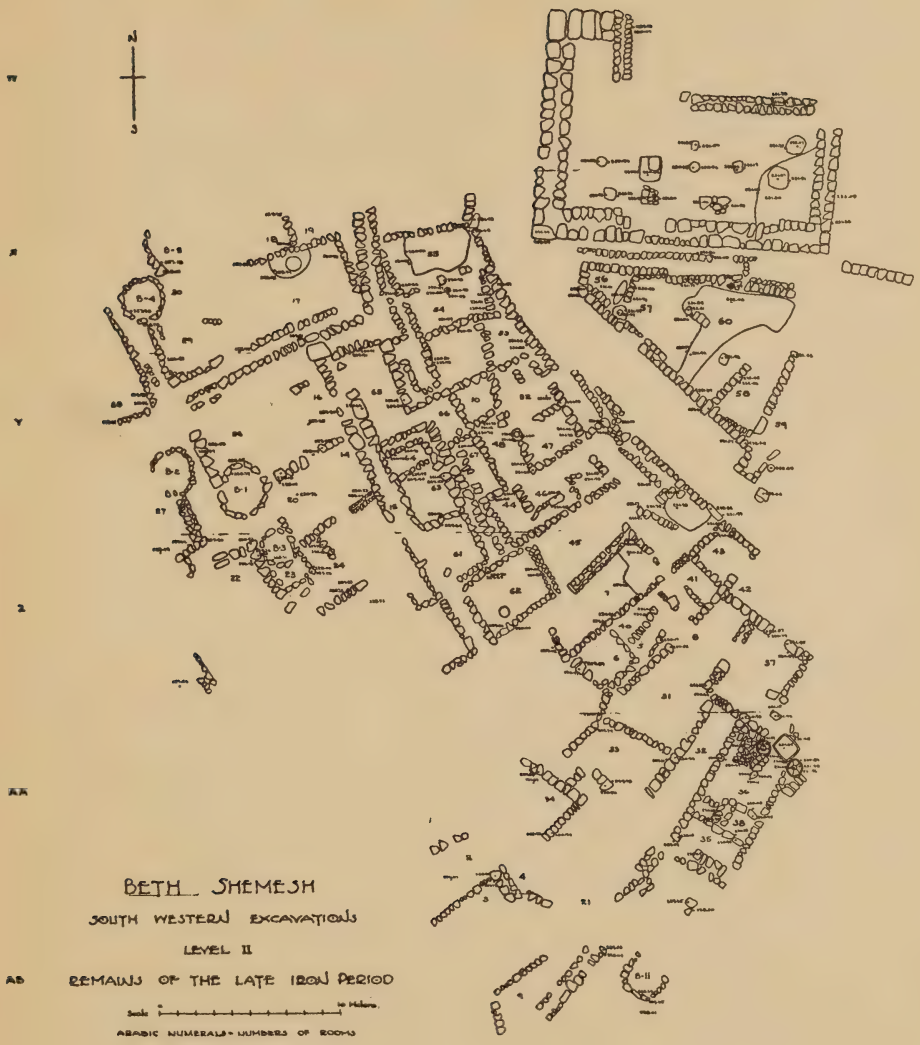
Page

No. 246. Apr. 6. Jug. Reddish br., 130h; II intra-mural, No. of vat 205
No. 247. Apr. 11. Jug. Lt. br., 153h; II intra-mural 205
No. 248. Apr. 12. Jug. Brown, 134h; II 2-3 meters depth, near and north of II 58 207
No. 249. Apr. 14. Jug. Brown, bottom perforated, 114h; III under the region of great street 207
No. 253. Apr. 14. Mud Seal. Impression of scarab; III 7 x...
No. 254. Apr. 15. Chisel. Bronze, round, bent over shank and flat end, 48 + l; III sub square Y. 1 207
No. 255. Apr. 15. Ornament fr. core of spiral shell—a cross section cut through the whorl, 25x12; III sub square Y. 1 207
No. 263. Apr. 18. 2 Frags. of Knife Blade. Flint, fine ground sides and edge, 54w; III intra-mural along western wall 207
No. 306. Apr. 17. Arrow Head. Bronze, 106 l; III sub intra-mural 207
No. 307. Apr. 17. Earring. Bronze, 13d 207
No. 310. Apr. 14. Jug. Brown, burnished, 280h; III under region of great street in II 207
No. 314. Apr. 14. Cooking Pot. Brown, wet sm., 215h; III intra-mural 207
No. 315. Apr. 14. Pot. Lt. br., black grits, wet sm., 147d; III under region of great street 213
No. 316. Apr. 14. Jug. Buff, slip sm., scaled off pale reddish surface, 242h; under region of great street III 207
No. 321. Apr. 3. Jug. Light red, burnished and dec. with red lines, 153 + h; intra-mural 211
No. 326. Apr. 17. Bowl. Gray ware, burning lt. br., wet sm., 202d; III S. E. cor. 213
No. 327. Apr. 17. Lamp. Lt. br., wet sm., 165d; III S. E. cor. 207
No. 334. Apr. 6. Hole Mouth Jar. Brown, 303h; intra II west 211
No. 335. Apr. 7. Jug. Dk. br., yellowish surf., dec. red lines or bistre, 205h; II Rm. 44 205



From city debris.

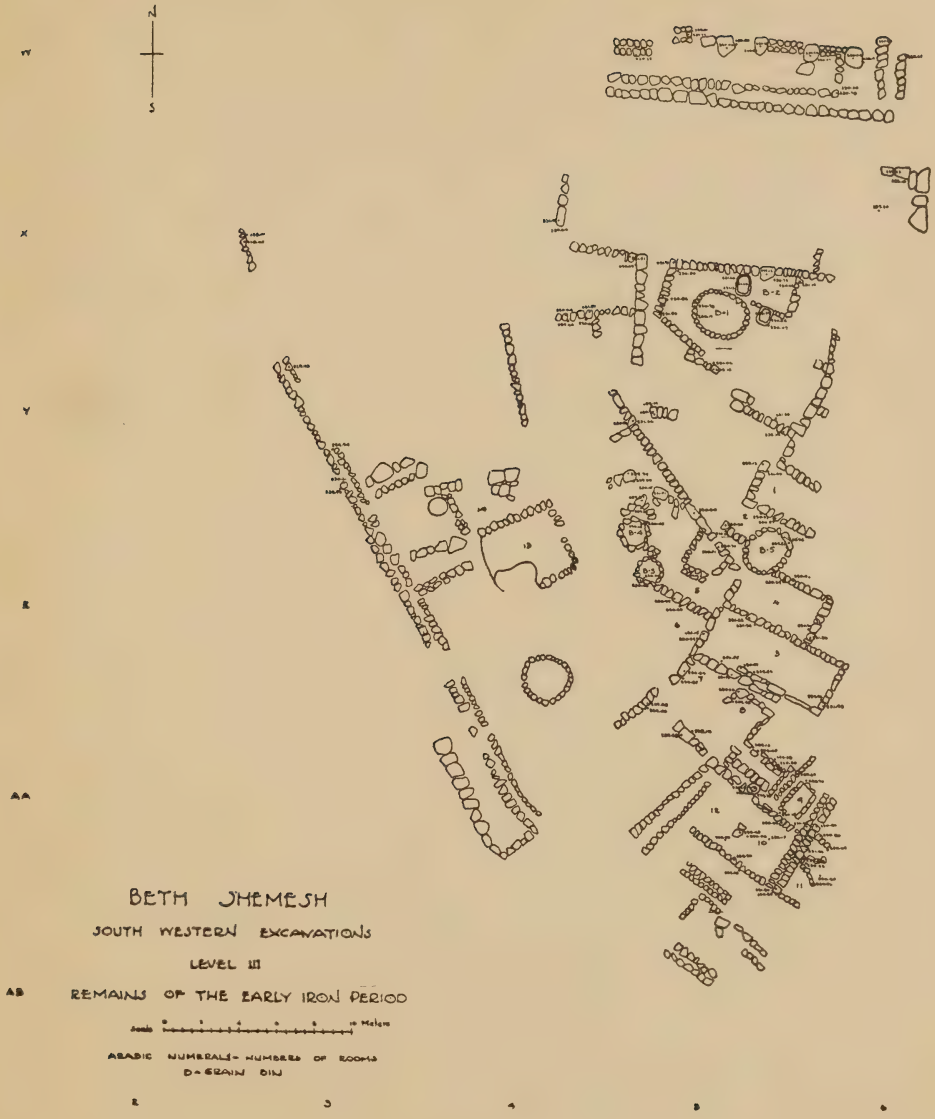
		Page
No. 337.	Apr. 5. Jar. Lt. br. (4 pieces in all), 182h; II pottery group north of peg Y. 4	211
No. 362.	Apr. 5. Jar. Brown, burnished on red slip, 275h; II pottery group north of peg Y. 4	211
No. 365.	Apr. 5. Bowl. Lt. br. burnished with red inside, 195d; II pottery group north of peg Y. 4	211
No. 366.	Apr. 5. Jug. Drab, wet sm., 95h; II pottery group north of peg Y. 4	211
No. 367.	Apr. 9. Jar. Dk. br., gr. core, wet sm. to reddish surf., 195h; II 47	205
No. 374.	Apr. 20. Jar. Dk. br., burning black in core of handle, 525h; IV 9. Comb-markings, two around shoulder and group of five beneath neck	113
No. 444.	Apr. 20. Figurine. "Snake Goddess" details in red, pale red paste, finely smoothed, 33 + h; II, 17. sub.	213
No. 463.	Apr. 23. Plaque. Lt. br., made in a mould, 85x41; IV	35
No. 517.	May 3. Razor. Bronze; 117 l; II temple building	
No. 518.	May 3. Small Stone Object. Basalt, 2 holes, shallow like eyes in a face, 55 l; IV, mid city	207
No. 519.	May 3. Spoon. Alabaster, 100 l; from north of II 66 and under it; that is level III. Note—what is apparently virgin soil shows just inside offset here	207
No. 617.	Apr. 21. Shovel. Copper, 525 l, exclusive of ring; middle of sector between inner and outer wall, near offset and peg Y. 3	137
No. 765.	May 17. Jug. Lt. br. So. cor. fine house, IV, 288h	213
No. 804.	May 16. Frag. From side of large dish. With 2 fluted handles made together; what appears to be portions of snake coils, on right side and top of handle group; very light reddish brown sandy ware, with a gr. almost white slip; IV under offset in city wall No. 2	213
No. 807.	Early Apr. Standard for a dish. Yellowish br., gr. core, white grits, 523 + h; intra-mural, S. E. near or on the inner wall	211


N
BETH SHEMESH
SOUTH WESTERN EXCAVATIONS
LEVEL II
REMAINS OF THE LATE IRON PERIOD
ARABIC NUMERALS = NUMBERS OF ROOMS
B = CRUSH BINS.

METEOROLOGICAL OBSERVATIONS AT BEITGEMAL

MARCH, 1928

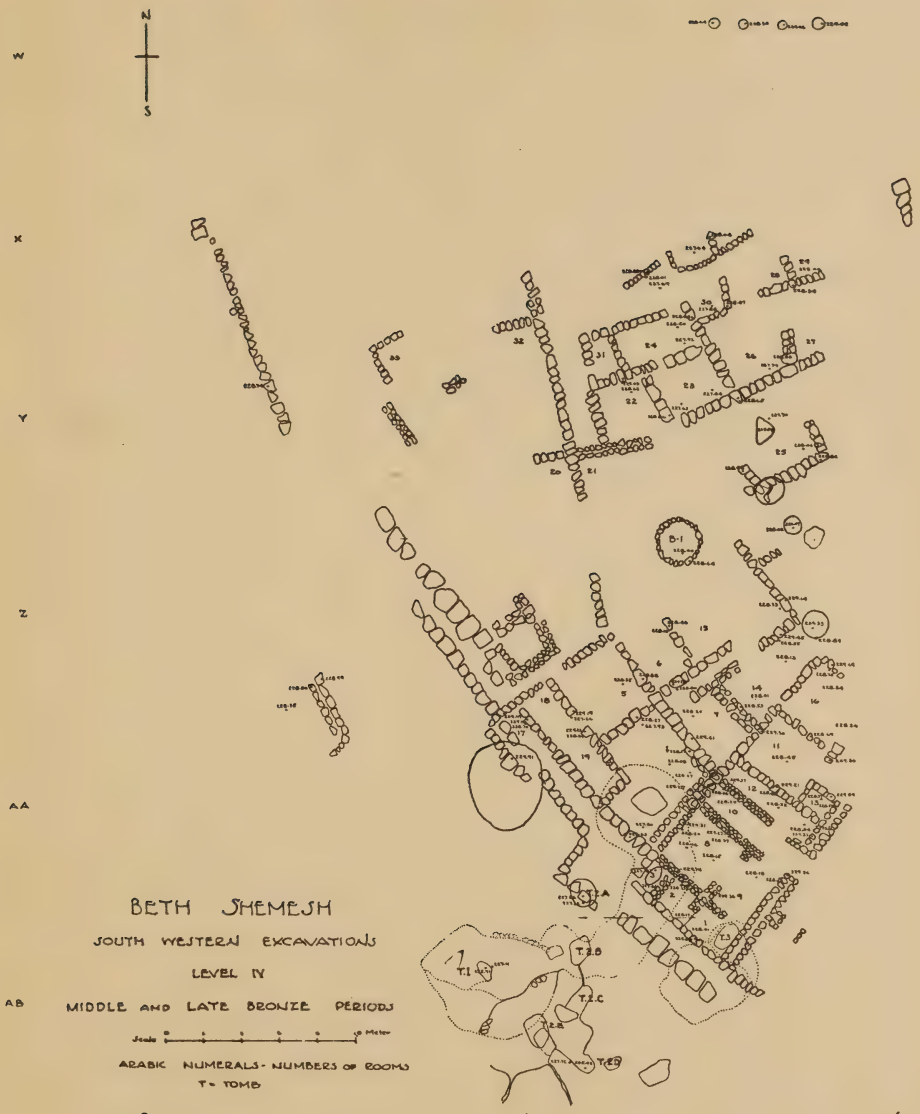
Date	Barometer Corrected mean Gravity	Mean Temperature Cent.	Minimum Temperature Cent.	Maximum Temperature Cent.	Cloud	Wind	Remarks (Rain Total mm. 350.8)
1	734.71	7.8	2.8	13.0	7	1	
2	737.03	7.0	3.0	13.0	1	2	
3	736.01	8.9	2.0	16.3	.	1	Ice
4	730.77	12.7	7.4	18.3	4	.	Lunar halo
5	729.92	10.8	5.6	16.2	.	1	
6	730.58	10.8	5.4	15.2	7	1	Rain, trace
7	730.07	11.0	7.5	15.0	4	.	Rain 0.4 mm.
8	727.75	12.8	7.3	16.2	8	2	Rain, trace
9	724.42	16.6	12.8	23.8	4	1	Rain, 2.8 mm.
10	728.15	14.4	11.1	18.6	5	2	Fog
11	729.89	14.1	9.4	20.2	3	.	
12	729.18	15.6	8.7	23.1	.	.	
13	729.16	16.1	10.6	22.2	.	1	
14	729.01	14.4	9.0	21.0	.	.	
15	728.73	15.5	9.6	21.2	.	2	
16	731.53	13.1	10.0	17.6	4	3	Fog
17	732.31	14.3	8.3	21.3	.	.	
18	727.15	18.1	9.3	24.8	1	2	
19	728.30	15.7	11.4	22.4	6	3	Rain, 4.3 mm.
20	731.33	12.8	8.6	17.2	8	2	
21	735.21	11.3	9.2	15.2	6	4	Rain, trace
22	734.09	11.9	7.2	16.7	3	2	
23	730.58	11.4	6.3	17.4	2	2	
24	728.42	14.2	5.0	21.2	3	1	
25	724.47	18.6	12.6	23.1	10	3	
26	729.59	16.1	11.9	21.4	2	2	
27	728.19	22.1	12.6	30.0	.	3	
28	726.80	25.5	21.1	33.5	4	2	Fog, lunar halo
29	729.37	16.1	12.0	22.0	.	2	Dew
30	727.20	17.1	11.4	25.2	.	1	
31	727.73	14.6	9.4	19.4	3	4	


N
S
BETH SHEMESH
SOUTH WESTERN EXCAVATIONS
LEVEL III
REMAINS OF THE EARLY IRON PERIOD
ARABIC NUMERALS = NUMBERS OF ROOMS
D = GRAIN BIN

METEOROLOGICAL OBSERVATIONS AT BEITGEMAL

APRIL, 1928

Date	Barometer Corrected mean Gravity	Mean Temperature Cent.	Minimum Temperature Cent.	Maximum Temperature Cent.	Cloud	Wind	Remarks: Rain
1	728.63	14.3	9.9	20.0	4	2	
2	726.27	17.9	9.1	26.1	1	1	
3	721.74	24.5	15.7	30.7	3	4	Fog, lunar halo
4	723.58	18.4	13.7	23.9	5	3	Fog
5	720.52	22.0	15.5	28.7	7	4	Dew
6	728.68	14.9	11.6	19.0	2	3	Dew
7	731.46	14.9	10.8	20.0	4	1	Dew
8	730.81	15.9	10.0	23.0	.	1	
9	730.02	18.6	11.1	26.0	6	1	
10	726.46	21.3	14.5	29.0	.	1	
11	727.26	17.1	12.4	22.1	2	3	
12	729.32	17.0	12.0	23.9	2	.	
13	730.07	18.3	11.0	25.9	.	1	
14	729.48	22.5	13.5	30.4	.	1	
15	730.44	20.2	12.0	28.7	.	1	
16	730.00	18.9	12.0	28.8	.	1	
17	729.09	21.2	11.5	30.3	.	1	Fog
18	728.71	27.9	20.0	36.3	.	.	
19	730.13	25.5	22.5	31.0	.	2	
20	732.21	22.7	15.3	31.2	.	1	
21	730.59	28.4	18.8	36.6	1	.	
22	728.34	33.0	26.6	39.5	3	2	
23	729.03	34.4	28.0	42.0	2	4	
24	728.17	35.1	30.0	43.6	.	.	Dust, haze
25	725.53	32.5	30.7	41.2	1	2	
26	728.87	19.1	17.0	24.0	6	4	Fog
27	729.43	17.4	13.3	22.7	6	2	
28	729.16	17.8	13.3	23.5	6	2	Dew
29	728.55	18.3	13.4	24.6	4	2	
30	729.82	18.2	12.4	25.7	4	1	Dew


N
S
W
X
Y
Z
AA
AB
BETH SHEMESH
SOUTH WESTERN EXCAVATIONS
LEVEL IV
MIDDLE AND LATE BRONZE PERIODS
Scale
Meter
ARABIC NUMERALS - NUMBERS OF ROOMS
T = TOMB
T.1
T.2.B
T.1.C
T.2.A
T.1.A
T.1.B
T.2.C
2
3
4
5
6

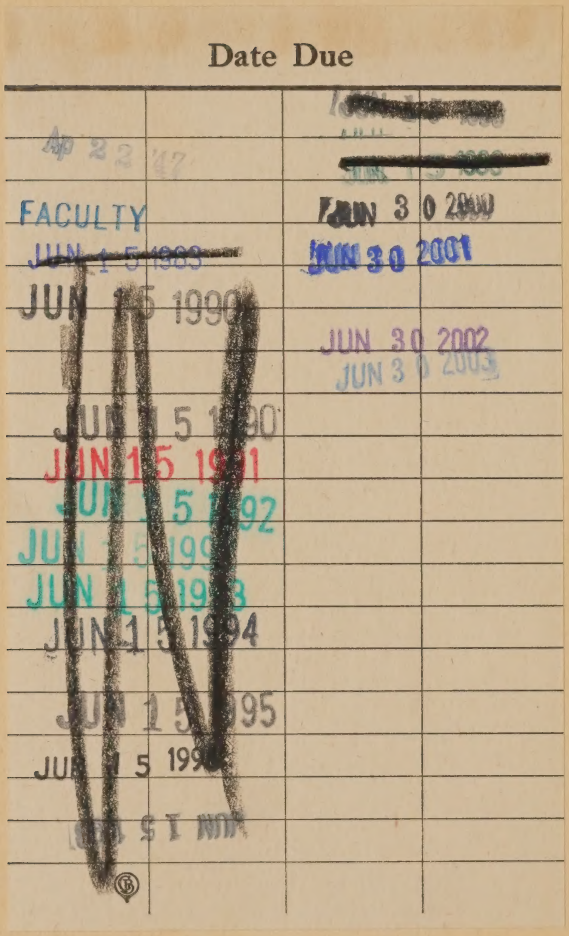
METEOROLOGICAL OBSERVATIONS AT BEITGEMAL

MAY, 1928

Date	Barometer Corrected mean Gravity	Mean Temperature Cent.	Minimum Temperature Cent.	Maximum Temperature Cent.	Cloud	Wind	Remarks: Rain
1	729.70	21.2	12.6	30.6	3	1	
2	727.78	26.6	18.5	33.3	5	2	
3	724.83	31.5	25.0	38.0	5	4	
4	726.54	29.6	28.0	36.8	4	4	Fog
5	729.21	18.5	15.0	22.9	7	4	Fog
6	727.94	18.0	14.2	23.5	7	3	
7	729.57	19.4	13.5	27.0	2	1	
8	728.44	25.6	14.3	35.8	3	2	
9	727.42	31.4	25.4	39.5	4	3	
10	729.00	24.7	23.4	31.0	3	1	Fog
11	729.64	20.2	17.0	26.7	.	2	Dew
12	729.62	18.5	13.2	26.4	.	2	Dew
13	729.01	19.5	12.5	27.0	.	2	
14	728.87	19.7	12.7	27.0	1	.	Dew
15	728.59	21.7	15.4	30.6	3	2	Dew
16	729.38	23.3	16.4	30.8	.	.	
17	728.88	26.2	16.6	35.2	.	2	
18	728.08	30.7	22.7	38.0	.	4	Dust, haze
19	727.54	30.9	24.3	38.2	.	1	
20	725.53	31.2	26.9	38.5	.	2	Dust, haze
21	727.18	20.9	16.8	26.1	2	2	Dew
22	728.69	21.5	16.3	28.7	3	2	Fog
23	729.42	27.3	20.0	35.0	1	2	Dust, haze
24	728.93	26.9	21.2	33.8	3	3	Dust, haze
25	730.91	23.3	17.7	29.5	5	2	Dew
26	729.08	22.9	16.8	31.3	6	1	Dew
27	728.59	23.6	17.1	31.4	3	2	
28	728.22	25.4	19.3	32.2	3	3	Dust, haze
29	728.61	21.1	17.5	26.8	6	3	Lightning, Thunder, Rain, a trace
30	728.71	19.4	14.3	26.1	2	2	Dew
31	727.52	19.3	14.0	25.0	2	2	Dew

Above: Panorama of western view.

BELOW: Views and details of Palatial House, southern corner.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